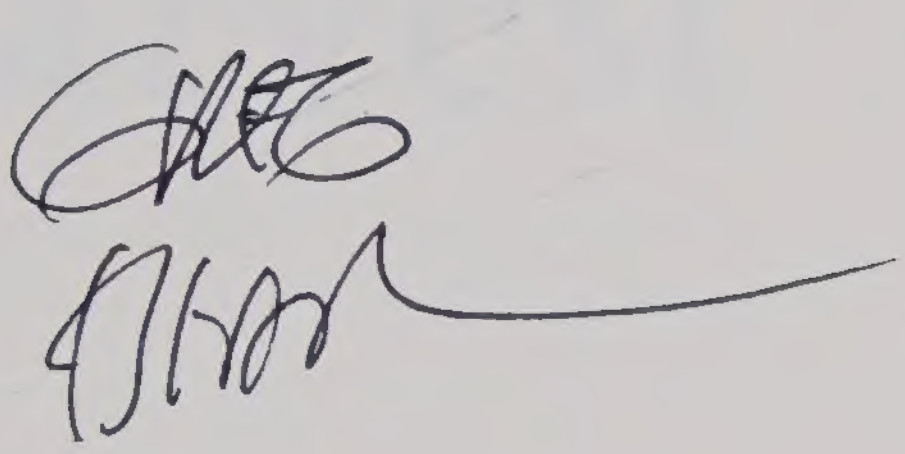
EARLY HARVEST

GREG BEAR

Early Harvest is the special anthology for Boskone 25 by Guest of Honor Greg Bear. The anthology contains two early short stories rewritten for this anthology, four pieces of film criticism written originally for publication in the *Los Angeles Times,* and four journalism pieces.

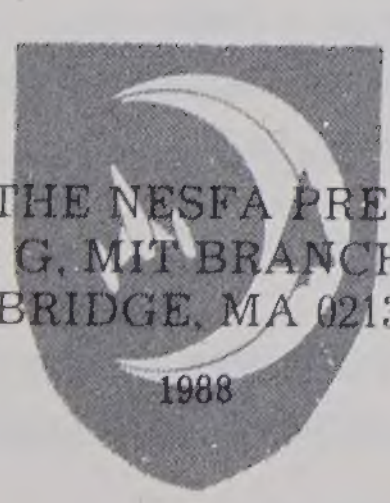
†"A Martian Ricorso" is an interesting speculation story of what a manned expedition to Mars might have found. This story was first published before the revelations of the Viking landers and could still just barely be possible.
†"Webster" is considered by Greg to be his first substantial sale. This story is an offbeat fantasy that concerns a spinster's obsession that brings about a startling transformation of a copy of one of the nation's most common books, in this woman's apartment.

Early Harvest is published in a limited, numbered edition of 800 copies. The first 225 copies are a slipcased, specially bound edition autographed by both the author and artist.



Early Harvest

Greg Bear



THE NESFA PRESS
BOX G, MIT BRANCH P.O.
CAMBRIDGE, MA 02139-0910

1988

COPYRIGHT © 1988 BY GREG BEAR
ALL RIGHTS RESERVED. NO PART OF THIS BOOK MAY BE REPRODUCED IN ANY FORM OR BY ANY ELECTRONIC OR MECHANICAL MEANS INCLUDING INFORMATION STORAGE AND RETRIEVAL WITHOUT PERMISSION IN WRITING FROM THE PUBLISHER, EXCEPT BY A REVIEWER, WHO MAY QUOTE BRIEF PASSAGES IN A REVIEW.

FIRST EDITION

LIBRARY OF CONGRESS CATALOG NO. 87-63316

INTERNATIONAL STANDARD BOOK NO.
0-915368-36-6 (REGULAR EDITION)
0-915368-91-9 (SLIPCASED EDITION)

Copyright Acknowledgments

"Introduction," copyright © 1988 by Greg Bear.

"A Martian Ricorso," copyright © 1988 by Greg Bear. First appeared in different form in *Analog*, February 1976.

"Webster," copyright © 1988 by Greg Bear. First appeared in different form in *Alternities*, 1974, ed. by David Gerrold.

"Alien," copyright © 1988 by Greg Bear. First appeared in *Los Angeles Times*.

"Raiders of the Lost Ark—On the Side of the Angels," copyright © 1988 by Greg Bear. First appeared in *Los Angeles Times*.

"The Ayatollah of Dune," copyright © 1988 by Greg Bear. First publication.

"Superman: Leaping Over the Changing Decades," copyright © 1988 by Greg Bear. First appeared in *Los Angeles Times*.

"The Shining," copyright © 1988 by Greg Bear. First publication.

"Spiritless Night in Room 502," copyright © 1988 by Greg Bear. First appeared in *San Diego Union*, October 1979.

"Fahrenheit 451—A 1984 with Hope," copyright © 1988 by Greg Bear. First appeared in *San Diego Union*, October 1979.

"The Machineries of Joy," copyright © 1988 by Greg Bear. First publication.

"Memorial Service for Ted Sturgeon," copyright © 1988 by Greg Bear. First appeared in *Locus*, July 1985.

THIS IS A LIMITED NUMBERED EDITION OF 800, THE FIRST 225 BEING A SIGNED, SLIPCASED EDITION.

THIS IS NUMBER 303

CONTENTS

Introduction v

Fiction

A Martian Ricorso 3

Webster 31

Film Criticism

Alien 51

Raiders of the Lost Ark—On the Side of the Angels 61

The Ayatollah of Dune 67

Superman: Leaping Over the Changing Decades 73

The Shining 81

Journalism

Spiritless Night in Room 502 89

Fahrenheit 451—A 1984 with Hope 97

The Machineries of Joy 103

Memorial Service for Ted Sturgeon 129

ACKNOWLEDGMENTS

I would like to thank the following people for all the help they've provided in producing this book. The production and typesetting crew were Peter Grace, Aron Insinga, Jim Mann Kelly Persons, Sarah Prince, Theresa Renner, Sharon Sbarsky, Tim Szczesuil, Greg Thokar, Mark Trumpler and Jane Wagner. George Flynn and Sue Hammond were our Master Proofers and copy editors. Additional last minute proofing was provided by Claire Anderson, Elisabeth Carey, Pam Fremon, and Sarah. As usual Rick Katze handled all of the contract arrangements.

Thanks to you all.

Andy Cowan, Editor
Marlboro, MA
November 20, 1987

INTRODUCTION

Now that we're among friends...
Fiction. The two pieces revised and included here, "A Martian Ricorso" and "Webster," have not been reprinted in this country.

Film criticism. For a number of years, I worked with Irv Letofsky, editor of the Sunday Calendar arts supplement at the *Los Angeles Times*, to produce occasional pieces of oddball film criticism. I had enoemous fun with all of them; one netted me excoriation in the letter columns and some measure of notoriety. I was living in Long Beach, near Los Angeles, when several of these pieces were published, and was able to attend press screenings, luncheons, all sorts of fascinating film industry events. There is glamour and wonder in films, also confusion and disappointment and hard work. I attended many films that Letofsky judged would be gone within a week and could not tie an article to them. A number of these pieces were published and the first, on *Star Wars* (not reprinted here),

drew a fair amount of attention. I was invited to discuss science fiction with executives at Dino de Laurentiis's offices in Beverly Hills, and Gene Roddenberry invited me out to lunch, because of that piece. I did not take advantage of these openings; I had no scripts in hand at the time, but they were fun. Since then, I've decided my particular strength is in books, but I still have enormous respect for films and film-makers. I'm including a couple of pieces that Letofsky decided he did not need.

I've also done a fair amount of journalism, and some of these pieces are included. Perhaps in a later anthology I can pull together my science journalism.

Among friends.

EARLY HARVEST

A MARTIAN RICORSO

This story first appeared in Analog *in 1976, getting me my first magazine cover. I was inordinately proud of that at the time, and the story received some favorable comments, largely, I suspect, because of its idea. Re-reading it recently for inclusion here, I became acutely aware that it was very badly written. Thank God I've improved since. Long ago, I made a pact with my future selves, giving them license to rewrite and revise my past indiscretions. I've done a considerable rewrite on this story. To my knowledge, "A Martian Ricorso" was the last Mars speculation story published before the revelations of the Viking landers. It's still just barely possible.*

This is the story's first appearance in English since 1976.

Martian night. The cold and the dark and the stars are so intense they make music, like a faint tinkle of ice xylophones. Maybe it's my air tank

hose scraping; maybe it's my imagination. Maybe it's real.

Standing on the edge of Swift Plateau, I'm afraid to move or breathe deeply, as I whisper into the helmet recorder, lest I disturb something holy: God's sharp scrutiny of Edom Crater. I've gone outside, away from the lander and my crewmates, to order my thoughts about what has happened.

The Martians came just twelve hours ago, like a tide of five-foot-high laboratory rats running and leaping on their hind legs. To us, it seemed as if they were storming the lander, intent on knocking it over. But it seems now we were merely in their way.

We didn't just sit here and let them swamp us. We didn't hurt or kill any of them—Cobb beat at them with a roll of foil and I used the parasol of the damaged directenna to shoo them off. First contact, and we must have looked like clowns in an old silent comedy. The glider wings came perilously close to being severely damaged. We foiled and doped what few tears had been made before nightfall. They should suffice, if the polymer sylar adhesive is as good as advertised.

But our luck this expedition held true to form. The stretching frame's pliers broke during the repairs. We can't afford another swarm, even if they're just curious.

Cobb and Link have had bitter arguments about self-defense. I've managed to stay out of them so far, but my sympathies at the moment lie with Cobb. Still, my instinctual desire to stay alive won't stop me from feeling horribly guilty if we *do* have to kill a few Martians.

We've had quite a series of revelations the last few days. Schiaparelli was right. And Percival Lowell, the eccentric genius of my own home state. He was not as errant an observer as we've all thought this past century.

I have an hour before I have to return to the lander and join my mates in sleep. I can last here in the cold that long. Loneliness may weigh on me sooner, however. I don't know why I came out here; perhaps just to clear my head, we've all been in such a constrained, tightly controlled, oh-so-disguised panic. I need to know what I think of the whole situation, without benefit of comrades.

The plateau wall and the floor of Edom are so barren. With the exception, all around me, of the prints of thousands of feet... Empty and lifeless.

Tomorrow morning we'll brace the crumpled starboard sled pads and rig an emergency automatic release for the RATO units on the glider. Her wings are already partially spread for a fabric inspection—accomplished just before the Winter Troops attacked—and we've finished transferring fuel from the lander to the orbit booster. When the glider gets us up above the third jetstream, by careful tacking we hope to be in just the right position to launch our little capsule up and out. A few minutes' burn and we can dock with the orbiter if Willy is willing to pick us up.

If we don't make it, these records will be all there is to explain, on some future date, why we never made it back. I'll feed the helmet memory into the lander telterm, stacked with flight telemetry and other data in computer-annotated garble, and glass disks.

The dust storm that sand-scrubbed our directenna and forced me to this expedient subsided two days ago. We have not reported our most recent discovery to mission control; we are still organizing our thoughts. After all, it's a momentous occasion. We don't want to make any slips and upset the folks back on Earth.

Here's the situation on communications. We can no longer communicate directly with Earth. We are left with the capsule radio, which Willy can pick up and boost for re-broadcast whenever the conditions are good enough. At the moment, conditions are terrible. The solar storm that dogged our Icarus heels on the way out, forcing us deep inside Willy's capacious hull, is still active. The effect on the Martian atmosphere has been most surprising.

There's a communicator on the glider body as well, but that's strictly short-range and good for little more than telemetry. So we have very garbled transmissions going out, reasonably clear coming back, and about twenty minutes of complete blackout when Willy is out of line of sight, behind or below Mars.

We may be able to hit Willy with the surveyor's laser, adapted for signal transmission. For the moment we're going to save that for the truly important communications, like time of launch and approximate altitude, calculated from the fuel we have left after the transfer piping exploded . . . was it three days ago? When the night got colder than the engineers thought possible and exceeded the specs on the insulation.

I'm going back in now. It's too much out here. Too dark. No moons visible.

Now at the telterm keyboard. Down to meaningful monologue.

Mission Commander Linker, First Pilot Cobb, and myself, Mission Specialist Mercer, have finished ninety percent of the local survey work and compared it with Willy's detailed mapping. What we've found is fascinating.

At one time there were lines on Mars, stripes like canals. Until a century ago, any good telescope on Earth, on a good night, could have revealed them for a sharp-eyed observer. As the decades went by, it was not the increased skill of astronomers and the quality of instruments that erased these lines, but the end of the final century of the *Anno Fecundis.* Is my Latin proper? I have no dictionary to consult.

With the end of the Fertile Year, a thousand centuries long, came the first bleak sandy winds and the lowering of the Martian jet streams. They picked up sand and scoured.

The structures must have been like fairy palaces before they were swept down. I once saw a marketplace full of empty vinegar jugs in the Philippines, made from melted Coca-Cola bottles. They used glass so thin you could break them with a thumbnail tap in the right place—but they easily held twenty or thirty gallons of liquid. These colonies must have looked like grape-clusters of thousands of thin glass vinegar bottles, dark as emeralds, mounted on spider-web stilts and fed with water pumped through veins as big as Roman aqueducts. We surveyed one field and found the fragments buried in red sand across a strip thirty miles wide. From a

mile or so up, the edge of the structure can still be seen, if you know where to look.

Neither of the two previous expeditions found them.

They're *ours.*

Linker believes these ribbons once stretched clear around the planet. Before the sand storm, Willy's infrared mapping proved him correct. We could trace belts of ruins in almost all the places Lowell had mapped—even the civic centers some of his followers said he saw. Aqueducts laced the planet like the ribs on a basketball, meeting at ocean-sized black pools covered with glassy membranes. The pools were filled by a thin purple liquid, a kind of resin, warming in the sun, undergoing photosynthesis. The resin was pumped at high pressure through tissue and glass tubes, nourishing the plantlike colonies inhabiting the bottles.

They probably lacked any sort of intelligence. But their architectural feats put all of ours to shame, nonetheless.

Sandstorms and the rapidly drying weather of the last century are still bringing down the delicate structures. Ninety-five percent or more have fallen already, and the rest are too rickety to safely investigate. They are still magnificent. Standing on the edge of a plain of broken bottles and shattered pylons stretching to the horizon, we can't help but feel very young and very small.

A week ago, we discovered they've left spores buried deep in the red-orange sand, tougher than coconuts and about the size of medicine balls.

Six days ago, we learned that Mars provides

children for all his seasons. Digging for ice lenses that Willy had located, we came across a cache of leathery eggshells in a cavern shored up with a translucent organic cement. We didn't have time to investigate thoroughly. We managed to take a few samples of the cement—scrupulously avoiding disturbing the eggs—and vacated before our tanks ran out. While cutting out the samples, we noticed that the walls had been patterned with hexagonal carvings, whether as a structural aid or decoration we couldn't tell.

Yesterday, that is, about twenty-six hours ago, we saw what we believe must be the hatchlings: the Winter Troops, five or six of them, walking along the edge of the plateau, not much more than white specks from where we sat in the lander.

We took the sand sled five kilometers from the landing to investigate the cache again, and to see what Willy's mapping revealed as the last standing fragments of an aqueduct-bridge in our vicinity. We didn't locate our original cache. Collapsed caverns filled with leathery egg skins pocked the landscape. More than sandstorms had been at the ruins. The bridges rested on the seeds of their own destruction—packs of kangaroo-rat Winter Troops crawled over the structure like ants on a carcass, breaking off bits, eating or just cavorting like sand fleas.

Linker named them. He snapped pictures enthusiastically. As a trained exobiologist, he was in a heat of excitement and speculation. His current theory is that the Winter Troops are on a binge of destruction, programmed into their genes and irrevocable. We

retreated on the sled, unsure whether we might be swamped as well.

Linker babbled—pardon me, expounded—all the way back to the lander. "It's like Giambattista Vico resurrected from the historian's boneyard!" We barely listened; Linker was way over our heads. "Out with the old, in with the new! Vico's historical *ricorso* exemplified."

Cobb and I were much less enthusiastic. "Indiscriminate buggers," he grumbled. "How long before they find us?"

I had no immediate reaction. As in every situation in my life, I decided to sit on my emotions and wait things out.

Cobb was prescient. Unluckily for us, our lander and glider rise above the ground like a stray shard of an aqueduct-bridge. At that stage of their young lives, the Winter Troops couldn't help but swarm over everything.

An hour ago, I braved the hash and our own confusion and sent out descriptions of our find. So far, we've received no reply to our requests for First Contact instructions. The likelihood was so small nobody planned for it. The message was probably garbled.

But enough pessimism. Where does this leave us, so far, in our speculations?

Gentlemen, we sit on the cusp between cycles. We witness the end of the green and russet Mars of Earth's youth, ribbed with fairy bridges and restrained seas, and come upon a grimmer, more practical world, buttoning down for the long winter.

We haven't studied the white Martians in any

detail, so there's no way of knowing whether or not they're intelligent. They may be the new masters of Mars. How do we meet them—passively, as Linker seems to think we should, or as Cobb believes: defending ourselves against creatures who may or may not belong to our fraternal order of Thinkers?

What can we expect if we *don't* defend ourselves?

Let your theologians and exobiologists speculate on *that.* Are we to be the first to commit the sin of an interplanetary Cain? Or are the Martians?

It will take us nine or ten hours tomorrow to brace the lander pads. Our glider sits with sylar wings half-flexed, crinkling and snapping in the rising wind, silver against the low sienna hills of the Swift Plateau.

Sunlight strikes the top of the plateau. Pink sky to the East; fairy bridges, fairy landscape! Pink and dreamlike. Ice-crystal clouds obscure a faded curtain of aurora. The sky overhead is black as obsidian. Between the pink sunrise and the obsidian is a band of hematite, a dark rainbow like carnival glass, possibly caused by crystalline powder from the aqueduct-bridges elevated into the jetstreams. From our vantage on the plateau, we can see dust devils crossing Edom's eastern rim and the tortured mounds and chasms of the Moab-Marduk range, rising like the pillars of some ancient temple. Boaz and Jachin, perhaps.

Since writing the above, I've napped for an hour or so. Willy relayed a new chart. He's found construction near the western rim of Edom Crater—recent construction, not there a few days ago when

the area was last surveyed. Hexagonal formations—walls and what could be roads. From his altitude, they must rival the Great Wall of China. How could such monumental works be erected in just days? Were they missed on the previous passes? Not likely.

So there we have it. The colonies that erected the aqueduct-bridges were not the only architects on Mars. The Winter Troops are demonstrating their skills. But are they intelligent, or just following some instinctual imperative? Or *both?*

Both men are sleeping again now. They've been working hard, as have I, and their sleep is sound. The telterm clicking doesn't wake them. I can't sleep much—no more than a hour at a stretch before I awake in a sweat. My body is running on supercharge and I'm not ready to resort to tranquilizers. So here I sit, endlessly observing.

Linker is the largest of us. Though I worked with him for three years before this mission, and we have spent over eight months in close quarters, I hardly know the man. He's not a quiet man, and he's always willing to express his opinions, but he still surprises me. He has a way of raising his eyebrows when he listens, opening his dark eyes wide and wrinkling his forehead, that reminds me of a dog cocking its ears. But it would have to be a devilishly bright dog. Perhaps I haven't plumbed Linker's depths because I'd go in over my head if I tried. He's certainly more dedicated than either Cobb or I. He's been in the USN for twenty-one years, fifteen of them in space, specializing in planetary geology and half a dozen other disciplines.

Cobb, on the other hand, can be read like a book.

He tends toward bulk, more in appearance than mass; he weighs only a little more than I do. He's shorter and works with a frown; it seems to take twice his normal concentration to finish some tasks. I do him no injustice by saying that; he gets the work done, and well, but it costs him more than it would Linker. The extra effort sometimes takes the edge off his nonessential reasoning. He's not light on his mental feet, particularly in a situation like this. Doggedness and quick reflexes brought him to his prominence in the Mars lander program; I respect him none the less for that, but... He tends to the technical, loving machines more than men, I've often thought, and from my more liberal arts background, I've resented that.

Linker and I once had him close to tears on the outward voyage. We conversed on five or six subjects at once, switching topics every three or four minutes. It was a cruel game and neither of us are proud of it, but I for one can peg part of the blame on the mission designers. Three is too small a community for a three-year mission in space. Hell. Space has been billed as making children out of us all, eh? A two-edged sword.

I have (as certain passages above might indicate) been thinking about the Bible lately. My old childhood background has been stimulated by the danger and moral dilemmas—hair of the dog that bit me. The maps of Mars, with their Biblical names, have contributed to my thoughts. We're not far from Eden as gliders go. We sit in fabled Moab, above the Moab-Marduk range, Marduk being one of the chief "baals" in the Old Testament. Edom Crater—Edom

means red, an appropriate name for a Martian crater. I have red hair. Call me Esau!

Mesogaea—Middle Earth. Other hair, other dogs.

Back on the recorder again. Time weighs heavily on me. I've retreated to the equipment bay to weather a bit of grumpiness between Linker and Cobb. Actually, it was an out and out argument. Linker, still the pacifist, expressed his horror of committing murder against another species. His scruples are oddly selective—he fought in Eritrea in the nineties. Neither has been restrained by rank; this could lead to really ugly confrontations, unless danger straightens us all out and makes brothers of us.

Three comrades, good and true, tolerant of different opinions.

Oh, God, here they come again! I'm looking out the equipment bay port, looking East. They must number five or six thousand, lining a distant hill like Indians. That many attacking... Cobb can have his way, and it won't matter, we'll still have had the course. If they rip a section of wing sylar larger than we can stretch by hand, we're stuck.

That was close. Cobb fired bursts of the surveyor's laser over their heads. Enough dust had been raised by their movement and by the wind to make a fine display. They moved back slowly and then vanished behind the hill. The laser is powerful enough to burn them should the necessity arise.

Linker as much as said he'd rather die than extend the sin of Cain. I'm less worried about that sin than

I am about lifting off. We have yet to brace the sled pad. Linker's out below the starboard hatch now, rigging the sling that will keep one section of the glider body level when the RATOs fire.

More dust to the East now. Night is coming slowly. After the sun sets, it'll be too cold to work outside for long. If the Winter Troops are water-based, how do they survive the night? Anti-freeze in their blood, like Arctic fish? Can they keep up their activity in temperatures between fifty and one hundred below? Or will we be out of danger until sunrise, with the Martians warm in their blankets, and we in our trundle-bed, nightmaring?

I've helped Linker rig the sling. We've all worked on the sled pad. Cobb has mounted the laser on a television tripod—clever warrior. Linker advised him to beware the fraying power cable. Cobb looked at him with a sad sort of resentment and went about his work. Other than the few bickerings and personality games of the trip out, we managed to keep respect for one another until the last few days. Now we're slipping. At one time, I had the fantasy we'd all finish the mission lifetime friends, visiting each other years after, comparing pictures of our grandchildren and complaining about the quality of young officers after our retirement. What a dream.

Steam rises from the hoarfrost accumulated during the night. It vanishes like a tramp after dinner.

Should we wish to send a message to Willy now, we shall have to unship the laser and remount it. The

hash has increased and Willy says his pickup is deteriorating.

More ice falls during the night. Linker kept track of them. My insomnia has communicated itself to him—ideal for standing long watches. Ice falls are more frequent here than on Earth—the leavings of comets and the asteroids come through this thin atmosphere more easily. A small chunk came to within sixty meters of our site, leaving an impressive crater.

Another break. Willy has relayed a message from Control. They managed to pick up and reconstruct our request for instructions on first contact. They must have thought we were joking. Here's part of the transmission:

"We think you're not content with finding giant vegetables on Mars. Dr. Wender advised on Martians...(hash)...some clear indications of their ability to fire large cylindrical bodies into space. Beware tripod machines. Second opinion from Frank: Not all green Martians are Tharks. He wants sample from Dejah Thoris—can you arrange for egg?"

I put on a pressure suit and went for a walk after the disappointment of the transmission. Linker suited up after me and followed for a while. I armed myself with a piece of aluminum from the salvaged pad. He carried nothing.

Swift Plateau is about four hundred kilometers across. At its northern perimeter, an aqueduct had once hoisted itself a kilometer or so and vaulted across the flats, covering fifteen kilometers of upland before dropping over the south rim into the

Moab-Marduk Range. Our landing site is a kilometer from the closest stretch of fragments. Linker followed me to the edge of the field of green and blue grass, keeping quiet, looking behind apprehensively as if he expected something to pop up between us and the lander.

I had a notebook in my satchel and paused to sketch some of the piers the Winter Troops hadn't yet brought down. None of them were over four meters tall.

"I'm afraid of them," Linker said over the suit radio. I stopped my sketching to look at him.

"So?" I inquired with a touch of irritation. "We're all afraid of them."

"I'm not afraid because they'll hurt me. It's because of what they might bring out in me, if I give them half a chance. I don't want to hate them."

"Not even Cobb *hates* them," I said.

"Oh, yes he does," Linker said, nodding his head within the bulky helmet. "But he's afraid for his life. I fear for my self-respect."

I shook my helmet to show I didn't understand.

"Because I can't understand them. They're irrational. They don't seem to *see* us. They run around us, fulfilling some mission... they don't care whether we live or die. Yet I have to respect them—they're *alien*. The first intelligent creatures we've ever met."

"If they're intelligent," I reminded him.

"Come on, Mercer, they must be. They build."

"So did these," I said, waving a gloved hand at the field of shattered green bottles.

"I'm trying to make myself clear," he said,

exasperated. "When I was in Eritrea, I didn't understand the nationalists. Or the communists. Both sides were willing to kill their own people or allow them to starve if it won some small objective. It was sick. I even hated the ones we were supporting."

"The Martians aren't Africans," I said. "We can't expect to understand their motives."

"Comes back double, then, don't you see? I want to understand, to know why—"

He suddenly switched his radio off, raised his hands in frustration and turned to walk back to the lander.

Our automatic interrupts clicked on and Cobb spoke to us. "That's it, friends. We're blanketed by hash. I can't get through to Willy. We'll have to punch through with the laser."

"I'm on my way back," Linker said. "I'll help you set it up."

In a few minutes, I was alone on the field of ruins. I sat on a weather-pocked boulder and took out my sketchbook again. I mapped the directions from which we had been approached and attacked and compared them with the site of the eggs we had found. What I was looking for, with such ridiculously slim evidence, was a clear pattern of migration—say, from the hatcheries in a line with the sunrise. Nothing came of it.

Disgusted at my desperation, I was lost in a fog of something approaching misery when I glanced up... And jumped to my feet so fast I leaped a good three feet into the air, twisting my ankle as I came down. Two white Martians stared at me with their wide, blank gray eyes, eyelashes as long and expressive as a

camel's. The fingers on their hands—each had three arms, but only two legs—shivered like mouse-whiskers, not nervous but seeking information. We had been too involved fending them off before to take note of their features. Now, at a loss what to do, I had all the time in the world.

Three long webbed toes, leathery and dead-looking like sticks, met at an odd two-jointed ankle which even now I can't reproduce on paper. Their thighs were knotted with muscles and covered with red and white stippled fur. They could hop or run like frightened deer—that much I knew from experience. Their hips were thickly furred. They defied my few semesters of training in biology by having trilateral symmetry between hips and neck, and bilateral below the hips. Three arms met at ingenious triangular shoulders, rising to short necks and mouselike faces. Their ears were mounted atop their heads and could fan out like unfolded directennas, or hide away if rough activity threatened them.

The Martians were fast when they wanted to be, and I had no idea what else they could eat besides the ruins, so I made no false moves.

One whickered like a horse, its voice reedy and distant in the thin atmosphere. The noise must have been impressively loud to reach my small, helmeted ears. It looked behind itself, twisting its head one-eighty to look as its behind-arm scratched a tuft of hair on its right shoulder. The back fur rippled appreciatively. Parrot-like, the head returned to calmly stare at me.

After half an hour, I sat down again on the boulder. I could still see the lander and the linear glint of the

glider wings, but there was no sign of Cobb or Linker. Nobody was searching for me.

My suit was getting cold. Slowly, I checked my battery pack gauge and saw it was showing a low charge. Cautiously, in distinct stages, I stood and brushed my pressure suit. The Martian to my right jerked, fingers trembling, and I held my pose, apprehensive. With a swift motion, it pulled a green, fibrous piece of aqueduct-bridge girder from its stiff rump fur with its behind-arm and held it out to me. The piece was about thirty centimeters long, chewed all around. I straightened, extended one hand and accepted the gift.

Without further ado, the Martians twisted around and leaped across the plateau, running and leaping simultaneously.

Clutching my gift, I returned to the lander. My feet and fingers were numb when I arrived.

The tripod lay on the ground, legs spraddled. The laser was nowhere to be seen. I had a moment's panic, thinking the lander had been attacked—but since I had kept it in sight, that didn't seem likely. I climbed into the lander's primary lock.

Inside, Linker clutched the laser in both hands, one finger resting lightly, nervously, on the unsheathed and delicate scandium-garnet rod. Cobb sat on the opposite side of the cabin, barely two meters from Linker, fuming.

"What in hell is going on?" I asked, puffing on my fingers and stamping my feet.

"Listen, Thoreau," Cobb said bitterly, "while you were out communing with nature, Mr. Gandhi here

decided to make sure we can't harm any of the sweet little creatures."

I turned to Linker, focusing on his uncertain finger and the garnet. "What are you doing?"

"I'm not sure, Dan," he answered calmly, face blank. "I have a firm conviction, that's all I know. I have to be firm. Otherwise I'll be just like you and Cobb."

"I have a conviction, too," Cobb said. "I'm convinced you're nuts."

"You're seriously thinking about breaking that garnet?" I asked.

"Damned serious."

"We can fight them off with other things if we have to," I reasoned. "The assay charges, the core sample gun—"

"Don't give Cobb any more ideas," Linker said.

"But we can't talk to Willy if you break that garnet."

"Cobb saw two of the Winter Troops. He was going to take a pot-shot at them with this." Linker lifted the laser, face still blank.

I blinked for a few seconds, feeling myself flush with anger. "Jesus. Cobb, is that true?"

"I was sighting on them, in case there were more—"

"Were you going to shoot?"

"It was convenient. They might have been a vanguard."

"That's not very rational," I observed.

"I'm not sure I'm being rational, either," Linker said, fully aware how fragmented we were now, the sadness we all felt coming to the surface. His eyes

were doglike, searching my face for understanding, or at least a way to understand himself.

"I'll do anything necessary to make sure we all survive," Cobb said. "If that means killing a few Martians, then I'll do it. If it means overruling the mission commander, then I'll do that, too."

"He refused to put the laser down, even when I gave him a direct order. That's mutiny."

"This isn't getting us anywhere," Cobb said.

"I won't vouch for your sanity," I said to Linker. "Not if you break that garnet. And I won't vouch for Cobb's, either. Taking pot-shots at possibly intelligent aliens." I remembered the stick. Damn it, they *were* intelligent! They had to be, advancing on a stranger and giving him a gift... "I don't know what sort of speculative first-contact training we should have had, but in spirit if not in letter, Linker has to be closer to the ideal than you."

"We should be testing the brace on the pad and leveling the field in front of the glider. When we get out of here, we can argue philosophy all the way home. And to get home, we *need the laser.*"

Linker nodded. "We'll just agree not to use it for anything but communication."

I looked at Cobb, finally making my decision, and wondering whether I was crazy, too. "I think Linker's right."

"OK," Cobb said softly. "But there's going to be a hell of a row after we debrief."

"That's an understatement," I said.

This record, even if it survives, will probably be kept in the administration files for fifty or sixty years—or longer—to "protect the feelings of the

families." But who can gainsay the judgment of the folks who put us here? Not I, humble Thoreau on Mars, as Cobb described me.

I did not reveal the gift to my crewmates until the laser had been remounted in the lander. I simply laid it on the table, wrapped in an airtight transparent sylar specimen bag, while we rested and sipped hot chocolate. Linker was the first to pick it up, glancing at me, puzzled.

"We have enough of these, don't we?" he asked.

"It's been chewed on," I pointed out, reaching to run my finger along the stick's surface. I told them about the two Martians. Cobb looked decidedly uncomfortable then.

"Did they chew on it in your presence?" Linker asked.

"No."

"Maybe they were offering food," Cobb said. "A peace offering?" His expression was sad, as if all the energy and anger had been drained and nothing much was left but regret.

"It's more than food," Linker said. "It's like stick-writing... Ogham. The Irish and Britons used something similar centuries ago. Notches on the side of a stone or stick—a kind of alphabet. But this is much more complex. Here—there's an oval—"

"Unless it's a tooth-mark," I said.

"Whether it's a tooth-mark or not, it isn't random. There are five long marks beside it, and one mark about half the length of the others. That's about equal to one Deimotic month—five and a half days." My respect for Linker increased. He raised his eyebrows, looking for confirmation, and started to

hand the stick to me, then stopped and swung it around to Cobb. Mission commander, re-integrating a disgruntled crewmember. A mist of tears came to my eyes.

"I don't think they've reached a high level of technology yet," Linker said.

Cobb looked up from the gift and grinned. "Technology?"

"They built the walls and structures Willy saw. I don't think any of us can argue that they're not intent on changing their environment. Unless we make asses out of ourselves and say their work is no more significant than a beaver dam, it's obvious they're advancing rapidly. They might use notched sticks for relaying information."

"So what's this?" I asked, pointing to the gift.

"Maybe it's a subpoena," Linker said.

While I've been recording the above, Cobb has gone outside to see how long it will take to clear the glider path. The field was chosen to be free of boulders — but anything bigger than a fist could skew us around dangerously. The sleds have been deployed. I've finished tamping the braces on the pad.

The glider and capsule check out. In an hour we'll lase a message to Willy and give our estimate on launch and rendezvous.

Willy tells us that most of Mesogaea and Memnonia are covered with walls. Meridiani Sinus, according to his telescope observations, has been criss-crossed with roads or trails. The white Martians are using the sand-filled black old resin reservoirs for some purpose unknown.

Edom Crater is as densely packed as a city. All this in less than two days. There must be millions of hatchlings at work.

I'll break again and supervise the glider power-up.

Linker and Cobb are dead.

Jesus, that hurts to write.

We had just tested the RATO automatic timers when a horde of Winter Troops marched across the plateau, about ninety deep and a good four kilometers abreast. I'm certain they weren't out to get us. It was one of those migrational sweeps, a screwball mass survey of geography, and incidentally a leveling of all the aqueduct-bridges from the last cycle.

They gave us our chance. We didn't reply.

Linker had finished clearing the path. They caught him a half-kilometer from the lander. I think they just trampled him to death. They were moving much faster than a man can run. I imagine his face, eyebrows rising in query, maybe he even tried to smile or greet them, lifting a hand...

I can't get that out of my head. I have to concentrate.

Cobb knew exactly what to do. I think he didn't mount the laser solidly, leaving a few brackets loose enough so he could unship it and bring it down, ready for hand use at a minute's notice. He took it outside the ship with just helmet and oxygen on—it's about five or six degrees outside, daylight—and fired on the Winter Troops just before they reached the glider. There are dead and dying or blinded Martians all along the edge of the path.

They paid their casualties no heed. They did not

bother with us, just pushed around and through, touching nothing, staying away from the area he was sweeping—the edge of the path.

They can climb like monkeys. They dropped over the rim of the plateau.

They didn't touch Cobb. The frayed cord on the laser killed him when he stepped on it coming back in.

Where was I? Inside the glider, monitoring the power-up. I couldn't hear a thing. It was all over by the time I got outside.

The laser is gone, but we've already sent our data to Willy. I have the return message. That's all I need for the moment. The glider and capsule are powered and ready.

I'll launch it by myself. I can do that.

When Willy's position is right. The timer is going. Everything will be automatic.

I'll make it to orbit.

Two hours. Less. I can't bring them in. I could, but what use? There are no facilities for dead astronauts aboard the orbiter. What hurts is I'll have a better margin with them gone, more fuel. I did not want it that way, I never thought of that, I swear to God.

The glider wings are crackling in the wind. The wind is coming at a perfect angle, thin but fast, about two hundred kilometers an hour. Enough to feel if I were outside.

I trust in an awful lot now that Linker and Cobb are gone. Maybe it'll be over soon and I can stop this writing and stop feeling this pain.

Waiting. Just the right instant for launch. Timers,

everything on auto. I sit helpless and wait. My last instructions: three buttons and an instruction to the remotes to expand the wings to take-off width and increase tension. Like a square-rigger. They check okay, flat now, waiting for the best gust and RATO fire. Then they'll drop into the proper configuration, dragonfly wings, for high atmosphere.

I spent some time learning Martian anatomy as I cleared the path of the few Cobb had let through. There are still a couple out there. I don't think I'll hit them.

I killed one. It was in the Martian equivalent of pain. Pain/Cain. I hit it over the head with a rock pick. It died just like we do.

Linker died innocent.

I think I'm going to be sick.

Here it comes. RATOs on.

I'm in the first jetstream. Second wing mode—fore and aft foils have been jettisoned. I'm riding directly into the black wind. I can see stars, can see Mars red and brown and gray below.

Third wing mode. All wings jettisoned. Falling, my stomach says. Main engines on capsule are firing and I'm through the glider framework. I can see the glare and feel the punch and the wings are far down to port, twirling like a child's toy.

In low, uncertain orbit.

Willy's coming.

Last orbit before going home. Willy looked awfully

good. I climbed inside of him through the transfer tunnel and requested a long drink of miserable orbiter water. "Hey, Willy Ley," I said, "you're the most beautiful thing I've ever seen." Of course, all he did was take care of me. No accusations.

He's the only friend I have now.

I spoke to mission control. That was not easy. An hour ago. I'm sitting by the telescope, having pushed Willy's sensors out of the way, doing my own surveying and surmising.

So far, the Winter Troops—I *assume* they're responsible—have zoned and partially built up Mare Tyrrhenum, Hesperia, and Mare Cimmerium. They've done something I can't decipher or really describe in Aethiopis. By now I'm sure they've got to the old expedition landers in Syrtis Major and Minor. I don't know what they'll do with them. Maybe add them to the road-building material.

Maybe *understand* them.

I have no idea what they're like, no idea at all. I can't. We can't. They move too fast, grow along instinctive lines, perhaps. Instinct for culture and technology. They may not be intelligent in the way we define intelligence, not as individuals, anyway. But they do *move*.

Perhaps they're just resurrecting what their ancestors left them fifty, a hundred thousand years ago, before the long, warm, wet Spring of Mars drove them underground and brought up the sprouts of aqueduct-bridges.

At any rate, I've been in orbit for a week and a half. They've gone from cradle to sky in that time.

I've seen their balloons.

And I've seen the distant fires of their rockets, icy blue and sharp like hydroxy torches. They seem to be testing. In a few days, they'll have it.

Beware, Control. These brave lads will go far.

WEBSTER

David Gerrold bought this story in 1973; it was published in a slim original paperback anthology, Alternities, *in 1974. "Destroyers," a short-short that appeared when I was sixteen in* Famous Science Fiction *magazine in 1967 (it had been purchased when I was fifteen), was my first sale, but "Webster" was my first substantial publication.*

A middle-aged woman once criticized Abigail Coates as unrealistic; "No woman her age would be that interested in sex," she told me. That statement was astonishing enough, but what truly puzzled me was the assumption that by simply being a woman, she could speak for all *women. I've never assumed that my masculinity let me understand or speak for all males. Nor does it preclude me from writing about an offbeat female character. Our differences, ladies and gentlemen, are far fewer than our similarities.*

If I were from South America or Mexico, "Webster" would be called magic realism. But I'm not, so it's

simply offbeat fantasy. It still holds a place in my affections.

Dry.

It lingered in the air, a word of rustlings and whisperings. Vultures fanned her hair. Or—she ran her lean finger, covered in skin like pink parchment, up the page—dinosaur eggs, Roy Chapman Andrews in the middle of the Gobi, gray film flickering as fist-sized ovoids are lifted unhatched from their graves.

She folded the dictionary on her finger. It gripped her with a firm, friendly pressure.

Miss Abigail Coates did not enjoy her life. She took no joy in the bored pain of people in the streets. She felt imprisoned by light when the sun bounced from city walls and pavement and intruded into her small apartment. In this cosmos, her thin body gave no pleasure, caused no surprises, spurred no uncontrollable passions.

Miss Coates was fifty and, my God the needle in her throat when she thought of it, she had never borne a child; she had never even had a man.

Once, she had shared a lonely love with a boy five years younger than she. He could have blunted the needle pain in her throat; he had begged to be given the chance. *But no. I shall use my love as bait and let them who wish it pay the toll.*

"I am a pitiful woman," she said, drawing herself up from the overstuffed chair in her small apartment, standing straight and lean at five feet seven and three quarters inches. *I weep inside, then read the dear Bible and the even more dear dictionary. They*

tell me weeping is a sin. Despair, of my few, fell sins, is by far the lowest.

She looked around the dry, comfortable room and shielded her eyes from the gloom of the place where she slept, as if blinded by shadow. The place wasn't a bedroom because in a *bedroom* you slept with a man or men and she had none. Her eyes moved up the doorframe, nicked in one corner where clumsy movers had knocked her bed against the wood, twenty years ago; down to the worn carpet that rubbed the bottoms of her feet like raw canvas. To the chair behind her, coming unstuffed in the middle. To the wallpaper, chosen by someone else, stained with water along the cornice from some ancient rain. And finally she looked down at her feet, toes wriggling in loose frayed nylons, toenails thick and well-manicured; all parts of her body looked after but the core, the soul.

She went into the place where she slept and lay down. The bedsheets caressed her in an obligatory manner, wrinkles and folds in blankets rubbing her thighs, her breasts. The pillow accepted her peppery hair, and in the dark, she told herself to sleep.

The morning was better. Afternoon passed like a dull ache. In the twilight she wept as she fixed her small pale dinner of potatoes and veal. In the dark, she sat in her chair with the two books at her feet and stared at the flowers on the wall.

The morning was fine. The afternoon was hot and sticky and she took a walk, wearing sunglasses. She watched all the young people on this fine Saturday afternoon. *They hold hands and walk in parks and there, on that bench; she'll be in trouble if she keeps*

that up. Oh, to have the distant chance of being in trouble. She went back to the apartment, always waiting, smooth sliding lock on the door always faithful and undisturbed. The evening passed slowly in the heat. By midnight a cool breeze fluttered the sun-browned curtains in the window, then blew them in like the flapping wings of ghost-birds. She read the dictionary, looking for comfort, and found instead words she didn't wish to be reminded of; medical words, biological words. They came at her unbidden from the pages and would not leave her alone. She didn't think them obscene; they seemed marvelous. The sound of them made her tremble and ache. Again, the evening ended in tears.

She had spent her evenings like this, with few variations, for the past five years.

"I need a lover," she told herself firmly as the yellow morning sunlight crept across the ironing board and her fanciest dress, burgundy in shadows, orange in the glare. But one found lovers in offices and she didn't work; in trains and she didn't travel; in distant countries and she never left town. "I need a little common sense, a little self-control, to make me stop thinking like a reckless teen-ager." But the truth was she did not lack self-control. It was her prime virtue.

Her name, Coates, was not in the dictionary. There was Coatee, Tight-coat, Coatimundi, coat of arms, coat of mail, and then Miss Co-author, lover to a handsome author. They would collaborate, corroborate, celebrate. Celibate. She shut the book.

Miss Coates drew the curtains on the window and slowly stripped off her dress, tugging the zipper

down the back with the practised flourish of a crochet hook, rubbing the small of her back with her dry fingertips, chin held high, eyes closed to slits. Cool breezes came through the dark beyond the window and the heat in the apartment to fan her skin. Sweat lodged in the cleft between her breasts. She was proud of her breasts; they did not sag appreciably when she removed her bra. She squatted and marched her hands behind her to sit and then lie on the floor. Spreading her arms against the rough carpet, Miss Coates pressed her chin into her clavicle and peered at her breasts, now flat and boyish against the prominent ribs. Unspoiled goods. She cupped them in both hands. A thin crucifixion with legs straight and toes together.

Her head lay near the window. She looked up to see the curtains fluttering like her lungs. Mouth open. Tongue rubbing the backs of teeth. She moved her hands to her stomach and let them lie on flat warmth. *I am not so undesirable. No flab, few wrinkles. My thighs are not heavy, not dimpled with gross flesh.*

No more. She lifted her hands and rolled over to rise on one elbow. She looked at the dictionary, mouthing a word: *Lover.*

The dictionary and Bible sat small and tightly noncommittal in buckram and black leather.

"Help me," she asked the dictionary, gently pushing the Bible aside. "Book of all books, massive thing I can hardly lift, every thought lies in you, all human possibilities. Everything I can feel can be expressed through the words you hold. Lives exist in you, people and places I've never seen, things dead and

things unborn. Haven of ghosts and the preternatural, home of tyrants and saints. Surely you can make a man for me. Small word, little work. You can even *tell* me how to make a man from you." She could almost see that; a man rising from the open book, spinning like a man-shaped bird-cage filled with light.

The curtains puffed.

"Can't you?" she asked. The dictionary remained silent. She crossed her legs in a lotus next to the thick book and waited for the dust of each word, the microscopic, homeopathic bits of ink, each charged with the shape of a letter, a word, to sift between the fibers of the paper and confer with each other.

Dry magic. The words smelled sweet in the cool midnight breeze. *Dead bits of ink, charged with thought, arise.*

Veni

Her tongue swelled with the dryness of the ink. She unfolded and lay flat on her stomach to let the rough carpet mold her skin with criss-crossword puzzle lines.

Miss Coates flopped the dictionary around to face her, then threw its cover and clumps of pages open to the middle. Her finger searched randomly on the page and found a word. She gasped. *Man* it said, clear as could be next to her colorless nail. Man! she moved her finger and sucked in her breath.

"There *is* a man in you!" she told the book, laughing. It was a joke, after all; she was not that far gone. Still grinning, she rubbed her finger against the inside of her cheek and pressed the dampness onto the word. "Here," she said. "A few of my cells."

Oh, she was clever, she was brilliant! "Clone them." Then she thought better of it and said, "But don't make him look like me. Change him with your medical words, plastic surgery and eugenics and genotype." The page darkened where the tip of her finger had pressed. The ink did not blur. She shut the book and returned to her lotus. *As my trunk rises from the flower of my legs and the seat of my womb, so, man arise from the book of books.*

Would it thunder? Only silence. The dictionary trembled and the Bible looked somber in shadow. The yellow bulb in the shaded lamp sang faintly. The air grew heavy. *Don't falter,* she told herself. *Don't lose faith, don't drop the flower of your legs and the seat of your womb. A bit of blood? Or milk from unsucked breasts? Catalysts... Or, God forbid, something living, a fly between the pages, the heart of a bird, or—* She shuddered, almost ill with excitement, with a kind of belief, *the clear seed of a dead man.*

The book. It almost lifted its cover. It *breathed.*

"That was it," she whispered, awed. "It knows how."

It sucked warmth from the air. Frost clung to its brown binding. The cover flew back, just a sudden wind from the window sweeping through the room. The pages flapped, but two stuck together, struggling, bulging...splitting.

Rising, a figure, arms spread, twirling like an ice-skater, soaking up dust and air and heat, tightening and coalescing.

Handsome! Make him handsome and rugged and kind, and smart as I am, if not smarter. Make him

like a father but not my father and like a son and a lover especially a lover, warm, and give him breath that melts my lips and softens my hair like steam from jungles. Concentrate there *yes large and strong and full. He should like warm dry days and going to lakes and fishing, but actually he likes reading to me more than fishing, and he should like cold winter days and ice-skating with me he could if you will allow me to suggest he could be brown-haired with a shadow of red and his cheeks rough with fresh young beard I can watch grow and he should—*

His eyes! They flashed as he spun, molten beacons still indefinite. His nose became apparent and she approved. His hair danced and gleamed, dark brown with a hint of red. Arms, fingers, legs crawled with words. An ant's nest of dry-ink "foot"s clustered at his base, tangling with "heel"s and "ankle"s. Then—the words became flesh and bone.

His breasts were firm and square and dark-nippled. The hair on his chest was dark and silky. He was still spinning. She cried out, staring at his groin.

Clothes? "Yes!" she said. "I have no clothes for men."

A suit, a pink shirt with cufflinks and pearl decorations.

His eyes blinked and his mouth opened and closed. His head drooped and a moan flew out like a whirling weight loosed from a string.

"Stop!" she shouted. "Please stop, he's finished!"

The man stood on the dictionary, knees wobbly, threatening to topple. She jumped up from the floor to catch him, but he fell away from her and collapsed on the carpet beside the chair. The book lay kicked

and sprawled by his feet, top pages wrinkled and torn.

Miss Coates stood over the man, hands fluttering at her breasts. He lay on his side, chest heaving, eyes closed. Her wide gaze darted from point to point on his body, lower lip held by tiny white upper teeth. After a few minutes, she was able to look away from him. She squinted more closely at the dictionary, frowned, then bent to riffle through the pages. Every page was blank.

"I am naked," she told herself, stretching out her hands, using the realization to shock herself to sensibility. She went into the place where she slept to put on some clothes. Away from the man, she wondered what she would call him. He probably did not have a name, not a Christian name at any rate; it seemed appropriate to call him by a name like everyone else, even if she had raised him from paper and ink, from a dictonary.

"Webster," she said, nodding sharply at the obvious. "I'll call him Webster."

She returned to the living room and looked at the man. He seemed to be resting peacefully. How could she move him to a more comfortable place? The couch was too small to hold his ungainly body; he was very tall, well over six feet. She measured him with the tape from her sewing kit. Six feet two inches. His eyes were still shut; what color were they? She squatted beside him, face flushed, thinking thoughts she warned herself she must not think, not yet.

She was in her best dress, wrapped in smooth dark burgundy, against which her pale skin showed to best advantage. It was one o'clock in the morning,

however, and she was exhausted. "You seem comfortable enough for now," she told the man, who did not move. "I'll leave you on the floor."

Abigail Coates went into her bedroom to sleep. Tired as she was, she could not just close her eyes and drift off. She felt like shouting for joy and tears dampened the pillow and moistened her pepper hair.

In the darkness, *he* breathed. Dreaming, did he cause the words to flow through her drowsing thoughts? Or was it simply his breath filling the house with the odor of printer's ink?

In the night, *he* moved. Shifting an arm, a leg, sending atoms of words up like dust. His eyes flickered open, then closed. Then his mouth. He moaned and was still again.

Abigail Coates's neck hair prickled with the first rays of morning and she awoke with a tiny shriek, little more than a high-pitched gasp. She rolled from her stomach onto her back and pulled up the sheet and bedspread.

Webster stood in the doorway, smiling. She could barely see him in the dawn light. Her eyelids were gummy with sleep. "Good morning, Regina," he said.

Regina Abigail Coates. Everyone had called her Abbie, when there had been friends to call her anything. No one had ever called her Regina.

"Regina," Webster repeated. "It's a name to remind one of queens and Canadian coins."

"Good morning," she said feebly. "How are you? How . . . do you feel?"

A ghost of a smile. He nodded slowly. "As well as could be expected." He walked into her room, stopping at the foot of her bed. "I'm rather well-

dressed. Too well-dressed. It's uncomfortable." Her heart was a little piston in her throat, hardly lubricated by the phlegm that threatened to choke her.

He moved to the side of the bed. Her side.

"You brought me out. Why?"

She stared up at his bright green eyes, like drops of water raised from the depths of an ocean trench. His hand touched her shoulder, lingered on the strap of her nightgown. One finger slipped under the strap, tugging it up a quarter of an inch. She felt the pressure of the cloth beneath her breast.

"Why?"

His breath sprinkled words over her face and hair. "And why...do I feel so obliged to..."

He pulled down the blind and closed the drapes and there was the sound of cloth dropped onto a chair. In the darkness, a knee pressed the edge of her bed. A finger touched her neck and lips descended to cover hers and part them. A tongue explored.

In the early morning hours, Regina Abigail Coates gave a tiny, squeezed-in scream.

Webster sat in the overstuffed chair and watched her leave. She shut the door and leaned against the wall, not knowing what to think or feel. "Of course," she whispered to herself, as if there were no wind of strength left in her. "Of course a man made of words doesn't like the sun." But why should that be so obvious? He was a man like any other in all ways but that one...

She walked down the hallway, past the doors of neighbors with whom she had only a nodding

acquaintance, and descended the stairs to the first floor. The street was filled with cars passing back and forth endlessly. Flattening nonexistent wrinkles from her dress, she stepped into the sunlight and faced the world, the new Regina Coates, debutante.

"I *know* what all you other women know," she said softly, with a bitter edge of triumph. "All of you!" She looked up and noticed the sky, perhaps for the first time in twenty years; it was rich with clouds, scattered across a bright blue sheet, demanding of her, *Breathe deeply.* She was part of the world now, the real world.

Webster still sat in the chair when she returned with two bags of groceries. He was reading her Bible. Her face grew hot and she put down the bags and removed it quickly from his hands. She could not face his querying stare, so she lay the book on a table, out of his reach, and said, "You don't want to read that."

"Why?" he asked. She didn't answer, picking up the bags again by their doubled and folded paper corners, taking them one in each hand into the kitchen and opening the old refrigerator to stock away the perishables.

"When you're gone," Webster said, "I feel as if I fade into the room."

She glanced up at the small mirror over the sink. Her shoulders twitched and a shudder ran up her back. *I am very far gone now.*

She fixed lunch but he refused to eat. Still, he sat across from her at the small table, face placid. The afternoon newspaper arrived and he held his hand out with a pleading expression; she gave it to him

with an uncertain smile. He rubbed his fingers over the pages, turning them slowly, seeming to absorb more than read. She ate her small trimmed sandwich and drank her glass of grapefruit juice. Glancing at him from all sides, surreptitiously, she straightened up the tiny kitchen.

What was there to say to a man between morning and night? She had expected that a man made of words would be full of conversation, but Webster had very little experience, and so while the words existed in him, they had yet to be connected. Or so she surmised. Still, his very presence gratified her. He made her as real as she had made him.

He refused dinner, even declining to share a glass of wine with her after (she had only one glass). "I expect there should be some awkwardness in the early days," she said. "Don't you? Some quiet times when we can just sit and be with each other. Like today."

Webster stood by the window, finger touching his lips, and nodded. He agreed with most things she said.

"Let's go to bed," she suggested.

In the dark, when her solitude had again been sundered and her brow was sprinkled with warm salty drops of exertion, he lay next to her, and—

He *moved.*

He *breathed.*

But he did not sleep.

Regina lay with her back to him, eyes wide, staring at the flowers on the ancient wallpaper and a wide trapezoid of streetlight glare transfixing a small table and its vase. She felt ten years, no, twenty! sliding

away from her, and yet she couldn't tell him how she felt, didn't dare turn and talk. The air was full of him. Full of words not her own, unorganized, potential. She breathed in a million random thoughts, deep or slight, complex or simple, eloquent or crude. Webster was becoming a generator. Kept in the apartment, his substance was reacting with itself; shut away from experience, he was making up his own patterns and organizations, subtle as smoke.

Even lying still, waiting for the slight movement of air through the window to cool him, he worked inside and his breath filled the air with his potential.

But Regina was tired and deliciously filled, and that satisfaction at least was hers. She luxuriated in it and slept.

In the morning, she lay alone in the bed. She flung off the covers and padded into the living room, pulling down her rucked-up nightgown, shivering against the morning chill. He stood by the window again, naked, not caring if people on the streets looked up and saw.

She stood beside him and gently enclosed his upper arm with her fingers, leaning her cheek against his shoulder, a motion that came so naturally she surprised herself with her own grace. "What do you want?" she asked.

"No," he said tightly. "The question is, what do *you* want?"

"I'll get some breakfast. You *must* be hungry by now."

"No."

"I'll get some food," she continued obstinately, letting go of his arm. "Do you want some milk?"

"No."

"I don't want you to get sick."

"I don't get sick. I don't get hungry. You haven't answered my question."

"I love you," she said, with much less grace.

"You don't love me. You need me."

"Isn't that the same?"

"Not at all."

"Shall we get out today?" she asked airily, backing away, realizing she was doing a poor imitation of some actress in the movies, her voice light, tripping.

"I can't. I don't get sick, I don't get hungry. I don't go places."

"You're being obtuse," she said petulantly, hating that tone, tears of frustration in her eyes. *How must I behave? Is he mine, or am I his?*

"Obtuse, acute, equilateral, isosceles, vector, derivative, sequesential, psychintegrative, mersauvin powers..." He shook his head, grinning sadly. "That's the future of mathematics for the next century."

"Did you think about those last night?" she asked. She cared nothing for mathematics; what could a man made of words know about numbers?

"Words mix in blood, my blood is made of words... I can't stop thinking, even at night. Words are numbers, too. Signs and portents, measures and relations, variables and qualifiers."

"You're flesh," she said. "I gave you substance."

"You gave me existence, but no substance."

She laughed harshly, caught herself, forced herself to be demure again. Taking his hand, she led him

back to the chair. She kissed him on the cheek, a chaste gesture considering their state of undress, and said she would stay with him all day today, to help him orientate. "But tomorrow we have to buy you some more clothes."

"Clothes," he said softly, then smiled as if all was well. She leaned her head forward and smiled back, a fire radiating from her stomach through her legs and arms. With a soft step and a skip she danced on the carpet, hair swinging. Webster watched her, still smiling.

"And while you're out," he said, "bring back another dictionary."

"Of course. We can't use *that* one any more, can we? The same kind?"

"Doesn't matter," he said, shaking his head.

The uncertainty of Webster's introverted afternoon hours became a dull, sugarcoated ache for Regina Coates. She tried to disregard her fears—that he found her a disappointment, inadequate; that he was weakening, fading—and reasoned that if she was his *mistress,* she could make him do or be whatever she wished. Unless she did not know what to wish. Could a man's behavior be wished for, or must it simply be experienced?

At night the words again poured into her, and she grinned in the dark, lying beside the warmth of the shadow that smelled of herself and printer's ink, wondering if they should be taking precautions. She was a late fader in the biological department and there was a certain risk...

She grinned, thinking about it. All she could imagine was a doctor holding up a damp bloody thing

in his hands and saying, "Miss Coates, you're the proud mother of an eight pound...dictionary."

"Abridged?" she asked wickedly.

She shopped carefully, picking for him the best clothes she could afford, in a wide variety of styles, dipping into her savings to pay the bill. For herself she chose a new dress that showed her slim waist to advantage and hid her thin thighs. She looked girlish in it, summery. That was what she wanted. She purchased the dictionary and looked through gift shops for something else to give him. "Something witty and interesting for him to do." She settled on a game of Scrabble.

Webster was delighted with the dictionary. He regarded the game dubiously, but played it with her a few times. "An appetizer," he called it.

"Are you going to eat the book?" she asked, half in jest.

"No," he said.

She wondered why they didn't argue. She wondered why they didn't behave like a normal couple, ignoring her self-derisive inner voice crying out *Normal?*

My God, she said to herself after two weeks, staring at the hard edge of the small table in the kitchen. *Creating men from dictionaries, making love until the bed is damp—at* my *age! He still smells like ink, not flesh. He doesn't sweat and he refuses to go outside. Nobody sees him but me. Me. Who am* I *to judge whether he's really there?*

What would happen to Webster if I were to take a gun and put a hole in his stomach, above the navel?

A man with a navel, not born of woman, is an abomination indeed.

If he spoke to her simply and without emotion just once more, or twice, she thought she would try that experiment and see.

She bought a gun, furtive as a mouse but a respectable citizen, for protection, a small gray pistol, and hid it in her drawer.

She thought better of it a few hours after, shuddered in disgust, and removed the bullets, flinging them out of the apartment's rear window into the dead garden in the narrow courtyard below.

On the last day, when she went shopping, she carried the empty gun with her so he wouldn't find it—although he showed no interest in snooping, which would at least have been a sign of caring. The bulge in her purse made her nervous.

She did not return until dinner time. *The apartment is not my own now. It oppresses me. He oppresses me.* She walked quietly through the front door, saw the living room was empty, and heard a small sound from behind the closed bedroom door. The light flop of something stiff hitting the floor.

"Webster?" Silence. She knocked lightly on the door. "Are you ready to talk?"

No reply.

He makes me mad when he doesn't answer like that. If I scare him, make him react to me in some way. She took out the pistol, fumbling it, pressing its grip into her palm... It felt formidable in her hand.

The door was locked. Outraged, that she should be closed out of her own bedroom, she carried the revolver into the kitchen and found a hairpin in

a drawer, the same she had used months before when the door had locked accidentally. She knelt before the doorknob and fumbled, teeth clenched, lips tight.

With a small cry, she forced the door open.

Webster sat with legs crossed on the floor beside the bed. Before him lay the dictionary, opened almost to the back. "Not now," he said, tracing a finger along the rows of words. Her mouth dropped open. "What are you looking at?" she asked, tightening her fingers on the pistol.

She stepped closer, looked down, and saw that he was examining the "W" section.

"I don't know," he said. He found the word he was looking for, reached into his mouth with one finger and scraped his inner cheek. Smeared the wetness on the page.

"No," she said. Then, "Why . . . ?"

There were tears on his cheeks. The man of dry ink was crying. Somehow that made her furious. "I'm not even a human being," he said. She hated him, hated this weakness; she had never liked weak men. He adjusted his lotus position and gripped the edges of the dictionary with both hands. "Why can't you find a human being for yourself?" he asked, looking up at her. "I'm nothing but a dream."

She held the pistol firmly to her side. "What are you doing?"

"Need," he said. "That's all I am. Your hunger and your need. Do you know what I'm good for, what I can do? No. You'd be afraid if you did. You keep me here like some commodity."

"I wanted you to go out with me," she said tightly.

"What has the world done to you that you'd want to create *me?*"

"You're going to make a woman from that thing, aren't you?" she asked. "Nothing worthwhile has ever happened to me without it going away the moment I..."

"Need," he said, raising his hands over the book. "You cannot love unless you need, Miss Regina Abigail Coates. You cannot love the real. The here. You must change the thing you love to please yourself, and damn it should it echo what hides within. Within *you.*"

"You *thing,*" she breathed, lips curled back. Webster looked at her and at the barrel of the gun she now pointed at him and laughed.

"You don't need that," he told her. "You don't need something real to kill a dream. All you need is a little sunlight."

She lowered the gun, eyebrow lifted, and smiled around her gritted teeth. She pointed the index finger of her left hand and her face went lax. Listlessly, she whispered, "Bang."

The smell of printer's ink became briefly more intense, then faded on the warm breeze passing through the apartment. She kicked the dictionary shut.

How lonely it was going to be, in the dark with only her own sweat.

ALIEN

This piece got me into some hot water. It became notorious enough that at the 1980 Westercon in Los Angeles, I was invited to face a panel of tough critics, moderated by Bill Warren. They took umbrage with my declaration that Alien *could be thought of as the ultimate feminist film. In the piece as originally published, I clumsily stated that "neurotic feminists" might find the film upsetting. Many took the two words in this phrase to be strongly linked, and believed—with the paranoid fervor of the righteous—that I was another chauvinist pig condemning all feminists as neurotics. They also seemed to believe that I was demeaning the cause, perhaps making a joke at their expense, by linking feminism with a silly science fiction film. Nothing could be further from the truth, but that didn't stop MaryLouise Oates (now a regular columnist for the* Times, *but at that time a copy-person) from demanding equal time, and receiving it on the same page, below my article. She not only criticized my conclusions, she called*

into question my mental health, and steadfastly refused to see any sexual symbolism in the film. (In all fairness, she had never seen any of H.R. Giger's artwork, and was simply not equipped with the facts of the film's production, creators, and designers.) She also questioned my characterization of the birth process as a bloody piece of work, possibly disturbing to unprepared minds. Following her example, Times *readers filled the letter columns days later with more condemnations of my character and sensibilities. More women stated their concern for my mental health.*

Oates described herself, in the short biography appended to her piece, as a "feminist and mother."

I am a firm believer in the equality of women. That should make me a feminist, but I have never accepted political rhetoric as a substitute for effective political achievement. I believed in the ERA, and was deeply disappointed when it was voted down by sexist politicians. I am a father. I've seen the birth process, and it was—from my prepared point of view—a wonderful experience. It was also damned near as bloody as a battlefield, and in my experience, anything involving blood and pain—even birth—can upset the ignorant and squeamish, and can require mythic catharsis.

I've cut out the reference to "neurotic feminists." Sorry about that one. I've also added details to the piece, and fleshed it out beyond what was possible in the length constraints of the Times. *References to Andrea Dworkin are of course recent.*

All in all, the controversy was great fun, but it taught me several lessons. One: women are no

more perceptive about sex and sexuality in all of its ramifications than men. Liberal humanists can be as stubbornly blind and prudish as their opponents. And angry letter-writers are perfectly willing to say things in print they would never dream of stating in person.

Anyone who believes Alien *is free of sexual symbolism and an underlying, subconscious story line is probably crazy.*

Beyond the obvious elements of science fiction and horror, *Alien* may be the ultimate feminist film. Amid the technology, strange landscapes and mayhem is an untidy metaphor for women's worst fears, which, strangely enough, have been conjured up almost entirely by men. But then, men have been the chief explorers of perverse psychology in our time. *Alien*'s psychology is nothing if not perverse.

H.P. Lovecraft said that his monsters were "indescribable," that the horrors his characters faced were "unspeakable," hoping that we could project our own worst fears onto these word-shadows. But to actually show the "unspeakable" has until now been difficult in films. The sexual connotations of the unmentionable and the ghoulish have not often been made explicit. Yet Jack the Ripper fits neatly into the horror genre, and monsters menace beautiful women almost exclusively in low-budget thrillers. There is an unspoken law in "slasher" films that experimentation with sex will bring on horrible punishment. Even a sophisticated film such as Hitchcock's *Psycho* opens on a scene of illicit sex; Norman Bates's

abnormal psychology swings him into murder when he is unable to face up to the truth of his sexual attraction to a beautiful woman.

The creators of *Alien,* director Ridley Scott, producer Ronald Shusett and screenwriter Dan O'Bannon (who conceived the original story) have carried this hint of female victimization to its limit. By playing on a deep-seated adolescent fear of sexual awakening, they have abandoned the purely physical division between male and female and turned their movie into a parable of nature. *Alien* becomes one long series of nonsexist rapes.

Calling on the artistry of Swiss surrealist H.R. Giger, they have gone Lovecraft one better and given their "beast" an obscene reality, bringing to mind a mix of A.E. van Vogt's "Black Destroyer" ("On and on Coeurl prowled!") and Lewis Carroll's "Jabberwocky" ("Beware the Jabberwock, my son!/ The jaws that bite, the claws that catch!"). Giger's sexually explicit nightmares are rendered in airbrush in his disturbing book *Necronomicon.* A prototype of the Alien is found here, with its phallic-shaped head, imagery perhaps borrowed from fellow surrealist Ernst Fuchs, by way of Dali. Emerging from the mouth of this phallus-headed beast is a phallic tongue. In *Alien,* the monster's plunging "tongue" functions as a second set of jaws, a metallic death-piston dripping translucent slime.

O'Bannon's story is an allegory on several levels, the most obvious derived from a domestic garden. What worse horror than a child's first exposure to insects? Spiders suck their victims dry and wasps lay their eggs on paralyzed caterpillars that their young

may feed until the shriveled host is devoured... Death and birth entwine.

Our first exposure to the human facts of life and death can also disturb. Horror films often explore what happens to us after we die. But if the rotting dead are strange, for a child or adolescent just beginning to accept his status as a biological creature, then might not a blood-covered newborn be stranger still? The adolescent's perspective on sex and death and birth may not be sophisticated, not in a society where information about all these natural occurrences is still slanted and restricted.

For many, the act of sex seems to begin in pain and blood—the breaking of the hymen. Sex can be thought of as a violation that may result in a kind of parasitism, as the fetus quickens within the womb. This perspective is not limited to the uninformed young and the neurotic. Radical feminist Andrea Dworkin had written a book called *Intercourse,* which concludes that male oppression of women begins with the natural act of intromission—violation of personal territory. Obviously, however natural sex is, and necessary to the species, many people are vulnerable on this topic.

There is horror in the closeness of life to pain and death, and even if we grow up well-adjusted and sane, the dried husks of our past fears can be rattled by a scary fantasy. *Alien* does just that.

A spacecraft not built by human beings is found stranded on a cold, "primordial" misty moon. In shape it resembles a discarded egg-case from some enormous sea-beast. Our less-than-intrepid explorers enter the ship through portals shaped suspiciously

like vaginas. (Giger's primary technique is to substitute biological shapes for mechanical objects, and vice versa.) The astronauts encounter a mummified, extraterrestrial pilot, molded into its instrument, a gigantic gun-like machine with heavy phallic overtones. This pilot has been killed by having his thorax ruptured from within.

The peace of the womb-tomb has been violated...

In the depths of the ship is a hatchery, belonging not to the pilot's species, but to some kind of specimen the spaceship has picked up on its travels. Victim-to-be Cain descends and explores a gulch filled with eggs and protected by a spreading beam of blue laser light. The audience senses that these leathery, translucent shapes are not wholesome, and watches him bend over one, crying out, "No! Don't do it!" But he does not listen—victims never do—and is rewarded by having something awful leap out at him.

The movie's first rape is in progress.

The Alien's first form, the so-called "face-hugger," is designed to seize a victim and insert a tube down its available orifices, in this case a mouth and throat. Symbolically, with this combination of hands-over-the-face violence and oral sex, it fulfills its destiny in a viciously masculine fashion. The seed or embryo is deposited and grows within the immobilized, unconscious victim. Cain is returned to the ship by his comrades, and after being thoroughly examined—the face-hugger refuses to be removed without killing him—the host is allowed a brief moment of normality and mobility at the end of gestation. Then, in one of the most graphically disturbing

scenes in cinema, the Alien gives itself birth by a violent internal c-section. It has completed its "chest-burster" phase and escapes into the hidden recesses of the ship.

As so many human women have died in childbirth, subjected to another kind of natural tyranny (at least in Dworkin's view), Cain dies giving birth to what ship's science officer Ash later refers to as "Cain's son." The sexual and natural symbolism here is inescapable; the film-makers jam it down our throats, so to speak. And they're not yet done with this metaphor.

The Alien grows with incredible rapidity, hiding out in the recesses of the human vessel *Nostromo.* We're not shown what it eats, but a plausible suggestion is that it dines on ship's rats. The *Nostromo* is huge, and resembles an ornate gothic castle or cathedral, inside and out.

Ships, some psychiatrists inform us, are vessels which contain and protect, are female, symbols of motherhood. Much of the *Nostromo* is a close, dark womb of machines and instrument-filled bulkheads.

When the Alien is mature, it slaughters its victims with its multiple jaws, telescoping and phallic. It seems to swallow crewmembers whole, leaving no trace; or it paralyzes them and sticks them to the ship's walls with strands of gooey webbing. (A scene depicting the ship's Captain suspended in just such a cocoon was not included in the film's final print.) Neurotic film-goers, male or female—particularly if they share Dworkin's views—might find such suggestive mayhem very strong stuff indeed.

Obviously, more is going on here than the overt

plot of spaceships and monsters. The ship, it turns out, is involved in a kind of conspiracy against its crew. The "Company" has diverted the *Nostromo* to this distant moon, knowing something deadly—and perhaps useful—is there. "Mother" (so the ship's central computer is named) has been instructed to protect the Alien specimen at all costs. She is in league with the ship's science officer, Ash. Unknown to the rest of the crew, Ash is a robot, a kind of favorite son who will do anything Mother tells him to.

Granted that the crew is in deep trouble, abandoned by their own Mother, who has brought a deadly new suitor into the household... Granted that this suitor is intent on raping all of Mother's children...

How do we explain the scene in which the female second-in-command Ripley is attacked by Ash? The robot, perhaps deranged by a blow to the head, assaults her and tries to stuff a rolled-up girly magazine down her throat, as if imitating the Alien itself. Is Ash envious of this new suitor? Earlier dialogue shows that the science officer deeply admires the creature's uncompromising nature and ability to survive. On a level beyond the science fiction script, is Ash willing to rape a "sibling" to become more like the object of his admiration?

Ripley survives this assault. Finally, she must face the beast all by herself on the *Nostromo*. Does Mother help her? Not in the least. The ship seems to frustrate her every effort, perhaps because this rebellious daughter has set the ship's self-destruct mechanisms to go off. Perversely, when Ripley tries to reverse the sequence—having found the Alien

in her escape pod—Mother ignores her, counting down steadily to her own doom. Angry and terrified, Ripley is reduced to calling the entire ship a "bitch."

Yes, indeed. What a wondrous set of complexes she'll have to face if she survives! And survive she does, overcoming the monster and blowing him into space.

Composer Jerry Goldsmith slyly gives his own opinion of *Alien*. He incorporates a theme from his score for John Huston's *Freud* (1962). Not a note need be changed.

As Jung pointed out, there are aspects of both male and female in all people. *Alien* horrifies the vulnerable, female side in all of us. The monster comes from within as much as Morbius's Monster from the Id in *Forbidden Planet.*

The urge to rape is akin to the urge to eat. *Alien* gives men as well as women a chance to vicariously appreciate that dark side of sexuality which reduces partners to victims.

The beast is set loose inside of us, haunting dark corners. It is quiet. It knows its place. It has eyes only for us, because it has no life of its own.

We send our ships and cameras into space and they retrieve pictures of the outer planets, as wonderful as anything we can imagine, yet somehow coldly frightening. Perhaps something worse is waiting.

Until we discover what that is, we simulate it, mold it with the clay of our imaginations, lift it up to the dim starlight and shudder. What really scares us—the stars, or ourselves?

The sequel to Alien *was, beyond all expectations, a*

very effective science fiction film, even more popular than the original. Women by and large embraced the film for its portrayal of Ripley, aptly performed by Sigourney Weaver, as a totally competent hero. Not heroine. Marines at Camp Pendleton invited one of the film's female stars, who portrayed a tough macha *Space Marine, to attend their boot camp "graduation" ceremonies. She politely declined, stating that the character had been a portrayal, and did not accurately reflect her political persuasion. Maybe not, but* I *was convinced, too.*

Times have changed even in the eight years since Alien *was released. It's possible the above article would attract little or no attention today. Still, Andrea Dworkin is with us, as frightening a presence as Carrie Nation, although far more intelligent.*

Maybe Dworkin has a valid point. Justice and equality may not be in nature's scheme of things, and intromission may be proof that nature is lined up against women. If so, then both Alien *and* Aliens *are excellent examples of feminist propaganda.*

Anyone willing to give up sex to find out?

RAIDERS OF THE LOST ARK—ON THE SIDE OF THE ANGELS

I came to this film not knowing what to expect. During the spectacular conclusion, after an hour and a half of thorough entertainment, my hackles raised and I exclaimed aloud, in the theater, "The Shekinah*!" Just another crazy movie patron...*

This article was put together that night and submitted to Letofsky, who quickly approved it. It's probably my weirdest piece for the Times. *It appeared on Sunday, July 5, 1981.*

Inside most of us, archaeologist and general reader alike, lurks an adventurer itching to find the riches of King Solomon's treasure. The basic formula of the tale of vicarious adventure is simple: a hero, a quest—and complications.

Raiders of the Lost Ark is an excellent case in point. With a meticulous eye for detail, no patience for anything the least bit dull, seemingly boundless imagination and a belief in the power of fantasy,

Spielberg and Lucas and screenwriter Lawrence Kasdan have come up with a guaranteed winner.

But there are moments when *Raiders* transcends even these estimable merits. Were Moses himself to sit in the theater during the film's climactic conclusion, he would be impressed.

You don't mess around with the Ark of the Covenant. Inspiring anything less than awe, *Raiders* would be a flop.

While Christian fantasy has frequently relied on the quest for the Grail, a symbol of rejuvenation and healing, the Old Testament equivalent is the altogether more warlike Ark of the Covenant.

Charles Williams's novel *War in Heaven* deals with a modern-day quest for the Grail in London; *Raiders* analogously tells of a modern (1938) quest for the Ark.

In ancient times, the Arab or nomad tribes of the Middle East carried a container, or ark, that served as a symbolic throne and center of worship for their various deities. It is likely that the Hebrew Ark began this way, as a portable home for God. When Moses was given plans to manufacture paraphernalia for Yahweh's worship, among them were designs for an Ark to contain the second set of the Tablets of the Law. (Moses had smashed the first set in anger at the miscreant Hebrews.) This Ark was to be made of acacia wood and covered inside and out with gold. The lid or "mercy seat" of the vessel—very accurately re-created in *Raiders*—was to be surmounted by two Cherubim of beaten gold. The Ark was light enough to be carried by two men. God's presence in the Ark was denoted by a pillar of cloud during the day and a pillar of fire at night.

Very likely, the earlier tradition of the portable throne of God and a container for sacred objects merged in the Ark of Moses. Not everybody was comfortable with this idea, however. The Ark had its own kind of cult, and that was to be discouraged, for only Yahweh was to be worshipped; the Ark, orthodox authorities maintained, was merely the receptacle of the *sign* of God's presence, the *Shekinah,* but was not God Himself.

Soon after the Ark was captured by Philistines and placed in the temple of their god Dagon at Ashdod, the statue of Dagon was found toppled. Erected again, it was knocked over and broken. Plagues of tumors and rats broke out in the city, and this convinced the priests of Dagon to send the Ark (which they firmly believed held the god of their enemy) to Gath. Soon the people of Gath deduced that vermin and serpents would plague all who possessed the Ark away from its native land. Gath passed it on to Ekron, but Ekron wisely refused it, placing it in a cart hooked to two milch cows, hoping it would find its way back to Judah, or at least away from their part of the world. The cows carried it first to Bethshemesh, where a few townsfolk had the audacity to look inside. Though nominally in the land of Judah and among friends, umbrage was taken at this familiarity, and Yahweh smote the Bethshemeshites, slaughtering 50,070 of them.

The Philistine rape of the Ark lowered its value in the eyes of the Israelites and they let it languish at Kirjath-Jearim. It was forgotten until the time of King David, who ordered it to be found and brought

it to Jerusalem, where he danced in unseemly joy around it.

Eventually, when David's son Solomon built the first Temple, the Ark was kept in the Holy of Holies, the most revered third chamber. It remained there until the Babylonian king Nebuchadrezzar destroyed the Temple in 586 B.C. After this, the whereabouts of the Ark are uncertain.

Some maintain it was taken by the Pharaoh Sheshonk into Egypt. This is the tradition adhered to by the film-makers. More than likely, however, the importance of the Ark simply faded. Against the warnings of Jeremiah, who tried to devalue the Ark as a cult symbol, a few die-hards speculated that it would return when Israel needed it most.

It didn't.

The question as to whether God Himself resided in the Ark is uncertain. In Moses' time He certainly seemed to. And the Ark's power was obvious when it was carried by the armies of Joshua, who knocked down the walls of Jericho—one of the world's oldest cities—with trumpet-calls and loud huzzahs.

But later sources discouraged this concentration of God's powers in a material object. How could that which was ineffable and everywhere be contained in a Temple, much less an Ark? When smiting his enemies, perhaps it was not the immovable Yahweh or Jehovah Who did the work, but His servants—the terrible winged Cherubim.

This is an esoteric question addressed quite strikingly in *Raiders.* Do you—and if so, *how* do you—show the hand of God exacting vengeance?

In the final confrontation with its Nazi captors

(who should have known better, considering the experience of the Philistines), the Ark is opened by Belloq, the bad archaeologist. He peers inside to see if the second set of tablets is still contained therein. Though he has followed prescribed ritual, he finds nothing but sand inside...and then, dim, ghostly wraiths emerge. The wraiths swirl among the Nazis, take form, change horribly, and wreak God's havoc among them.

One wraith appears before Belloq, manifesting distinctly female features. Her face turns into a ghastly death mask, and the poor villain's head explodes. Other nasty men have their eyes burned out, their flesh desiccated, or their faces melted from their skulls. Clearly, Jehovah is royally ticked.

But why a *female* face? Are the film-makers —Disney-loving Spielberg foremost—trying to remind us of the demons in *Fantasia?* Or do these talented folks have something more esoteric in mind? If we discount the possibility of female Cherubim—angels being neuter—something even more striking becomes possible.

Some authorities, notably Raphael Patai in his excellent book *The Hebrew Goddess,* assert that the "presence of God" or *Shekinah* became regarded as a female adjunct to Jehovah in the early third century A.D. During the development of the Hebrew mystical tradition, the Kaballah, this was elaborated upon. The *Shekinah* was treated symbolically as God's partner.

Patai asserts that the *Shekinah,* besides performing many benevolent functions, served as the instrument of God's wrath. Rather like letting the wife spank the kiddies, but with Old Testament results.

Whatever the film-makers' intentions, I felt a very satisfactory shiver of awe. My mythic side was convinced it had stared at the dark face of the *Shekinah* and lived.

Having said this much, it should be pointed out that Indiana Jones's archaeological techniques leave much to be desired. He is indeed a raider, and his professorial boss is a receiver of pillaged goods. The wonderful shrine of the golden idol in the first few minutes of the film would be far more interesting to a true archaeologist than the idol itself, equipped as it is with ancient technological devices of considerable ingenuity. But I'll dismiss this with a smile.

The sequel, Indiana Jones and the Temple of Doom, *was a disappointment. With little of* Raiders's *ingenuity and awe, despite skilled film-making,* Temple *falls victim to "Give 'em more of what they liked the first time." More bugs, more corpses. Spielberg's propensity for hokey-looking pagan altars was also manifested in an otherwise entertaining* Young Sherlock Holmes. *Enough* hommage *to the seedy serials of our impressionable youth. And will someone please give the set designers a lesson in Hindu architecture? They seem to do quite well at Egyptian.*

THE AYATOLLAH OF DUNE

This piece was never published. Dune, *against my expectations, did poorly at the box office. Letofsky seldom uses articles about films that won't survive to see the publication day. Why did* Dune *fail? I think largely because it was undercut; that is, the version released to the public was at least an hour shorter than the version first screened for the press. Major characters appear, announce their names, and die shortly after. Nevertheless, I like this movie a great deal. It is as strange and visionary as anything in SF cinema, and it honestly portrays the feel of the novel* Dune. *Frank Herbert approved of it before he died, and even propagandized for a longer version to be shown on TV. We may never see that longer version. Studios tend to forget their financial failures. Meanwhile, most audience members were unwilling to forgive the choppy edit and see through to what David Lynch had achieved.*

At the very least, we are left with some of the most remarkable scenes ever put on film.

In this article, I used my standard ploy of hooking the film to an examination of myth and history. I was not allowed to be a film critic, per se; the Times *has some very good critics, and in fact, Michael Wilmington's review of* Dune *was one of the fairest and most perceptive the film received.*

Frank Herbert's novel *Dune* was serialized in *Analog* magazine in the early 1960s, when gasoline was as cheap as a quarter a gallon and the Arab oil embargo was a decade away. *Dune* deals with the development of a young messiah, Paul Atreides, in a Byzantine future world some eight thousand years in the future. The economy of that future, as envisaged by Herbert in enormous detail, centers on Spice, also called Melange, a substance which extends life and facilitates a mental warping of space-time.

Spice allows navigators of the independent Spacing Guild to move huge starships called Heighliners from point to point by sheer willpower; it also gives young Paul visions of his future. Spice is found exclusively on the desert planet Arrakis, or Dune, and its mining is assigned to various powerful families by the mercantile combine CHOAM and the Padishah Emperor Shaddam IV.

Modern audiences watching David Lynch's complex (if short) adaptation of *Dune* can easily associate Spice with less exalted drugs. There are other associations modern audiences might make, however, and they are even more discomfiting.

The story of Paul Atreides' rise to become Paul Muad'Dib, and eventually the Kwisatz Haderach or

"Shortening of the Way," is uncannily contemporary, more than just a mix of Lawrence of Arabia and high technology. Muad'Dib's quest to control the production of Spice on Arrakis, and to avenge the downfall of his family, is politically and economically identical to the Arab quest to shake loose of Western influence and to control the world economy through oil.

Though he is not Moslem, Paul, with his religious background and mystical powers, is an embodiment of the kind of charismatic Moslem leader the Western world has had to deal with for centuries. In *Dune,* Herbert has borrowed much of the Arab tongue and phrasings to outline and color his future societies. The Bene Gesserit priestesses implant prophecies of the Lisan al Gaib, "The Voice from the Outer World," also referred to as the Mahdi, in the nomadic Fremen of Arrakis. When Paul arrives on Arrakis, he finds his path almost ready-made.

Al mahdi, "He who is guided aright," is the imam of God who, according to tradition, Mohammed declared would bring justice and equity to the Earth. Sunni Moslems believe al mahdi has not yet appeared; the Shi'ite schism within Islam believe him to have been the last of the imams of the house of 'Ali. Several other Moslem leaders have claimed to be al mahdi over the centuries, including Mohammed Ahbar, who defeated the English forces of General Gordon at Khartoum in the Sudan in 1885. (Ahbar was portrayed by Laurence Olivier, opposed to Charlton Heston's General Gordon, in the film *Khartoum.*)

A more half-hearted attempt to unseat the West-

ern powers was made by Mulai Ahmed er-Raisuli (or er-Raisuni), a charismatic Berber chieftain in Morocco who in 1904 kidnapped U.S. citizen Ion Perdicaris and his stepson. Raisuli made it to the silver screen in John Milius's *The Wind and the Lion*, a fine adventure film which twists history enough to qualify as an alternate universe fantasy, hence perhaps more related to *Dune* than *Khartoum*.

There is an obvious connection between al mahdi and much older Hebrew prophecies of a messiah.

For Christians, the prophecies of a messiah were fulfilled by Jesus. Jews, who of course do not accept Jesus as the messiah, have had to face the trauma of other claimants.

The seventeenth-century Smyrna mystic Sabbatai Zevi's claim to be the true Messiah was embraced by many throughout the Jewish world, from England to Persia. At the peak of his influence, Sabbatai Zevi was forced to become a Moslem to save his own life. This apostasy quickly shattered the faith of his followers, and ended his messianic career.

In the last decade, Westerners have re-encountered Islamic fundamentalism in the form of Iran's Shi'ite Ayatollah Khomeini. We face charismatic Arab leaders at almost every turn, from the self-proclaimed savior Moammar Khadafi of Libya to the moderate King Hussein of Jordan. Oil is the prize, the hostage and the bone of contention in the Middle East.

Paul Muad'Dib, viewed from the perspective of those who rely on Spice to get them from one place to another, is probably no more popular in the universe of *Dune* than Khomeini is to most of the world

today. Paul would certainly come across as more of a Khadafi than a King Hussein.

And yet the novel *Dune* is a perennial best-seller. How can followers of the Dune saga lament over reports of Arab terrorists in the morning newspapers, and sit down in a theater that evening to cheer the exploits of Muad'Dib in conquering the Emperor and his minions?

Skilled film-making and story telling aside (and there's plenty of both in movie and novel), many Westerners have a built-in sympathy for Paul because of a heavy cultural messianic infusion of first and second comings, of religious apocalypse and faith-induced turning points in history. If Moslems do not consider *Dune* blasphemous, they might also be intrigued.

Now, King's X for a moment, Christians, Jews, and Moslems; I am not discussing religious faith here, and do not wish to disparage whichever messiah, forerunner, or prophet you might believe in. Let's look at historical facts.

Many notable Jews in the past have lamented the Jewish invention of the concept of messiah. The messiah, imbued with the power of God in some direct manner, is a figure of hope and promise, but also of tremendous change and inevitably of destruction. Humans can't change without destroying institutions, cultures, even populations. With the splintering of Christianity from the tree of Judaism, and six centuries later with the branching of Islam from a joint Semitic heritage, Jews came to face their greatest challenges since the Captivity and the Diaspora. Their own ideas came back to haunt them;

their alleged mistreatment of Jesus and the prophet Mohammed led to their being reviled for centuries by believers in two of the most powerful religions in history.

Now, the predominantly Christian West and the Islamic Middle East hover around the tiny, fear-trained Jewish state of Israel, one side offering support, the other more often than not vowing destruction. The roles have been reversed in the past, with Moslems tolerating Jews and Christians conducting extensive pogroms. A supposedly Christian Western nation in this century tried to solve "the Jewish Problem" forever. Can we honestly say the situations might not reverse again, or come to some even more dire combination? Can anyone blame those Jews who ruefully wish their people had never come up with the idea of a messiah?

Dune, like much of modern science fiction, tantalizes us by turning a futuristic mirror on our own times. David Lynch's motion picture, with its compelling visuals, Wagnerian scale and pacing, and careful attention to the spirit and detail of Herbert's novel, makes the message all the more apparent...

We cheer Paul Muad'Dib, but on whose side do we actually sit?

SUPERMAN: LEAPING OVER THE CHANGING DECADES

This is one of my favorite articles written for the Times. *No controversy, and all the published letters were very nice.*

In the fifth century A.D., a writer named Nonnos took all the Greek heroes and their exploits and wove them into a 48-book epic poem, *Dionysiaca.* It was such a bestseller that enough copies have survived for us to read it today.

What Nonnos had in success and wordiness, he lacked in conviction. After all, everyone but the most naive had ceased to believe literally in the Greek pantheon eight or nine centuries earlier. Marvels and fantasies were the order of the day, with religions coming and going like amphoras of wine. And there was the official religion of Rome, Christianity, threatening to drive out and eclipse all others. Nonnos knew his audience and played down to them. Perhaps he even played down to himself.

In the United States, we have our own pantheon of demigods and heroes. Superman matches Hercules; Wonder Woman is Diana (of course) or even Athena; the Flash is Mercury (complete with winged boots in the 1940's); Aquaman and the Submariner are both Neptune. In recent decades, we've added Venus in the form of Barbarella.

There have been a host of talismanic heroes, their powers residing in various magic objects — the Green Lantern among the best of them. From more recent myth we have the Thing or the Incredible Hulk, both Caliban rendered scaly or green.

Where have we stashed these marvels of fantasy? Not in public temples, but in comic books. Since the late 1930's, children have been raised with visions of fantastic humans or near-humans with incredible powers. Some of us grew up but didn't put away childish things. There's something in us all that can still be touched by these bizarre fantasies, a basic need for wonder not satisfied by the often-grim visions of science fiction.

We would like to fly, maybe. Or we would like to simply have powers that must not be revealed, knowing that someone, somewhere, believed in us enough to entrust us with awesome abilities. Science fiction is too real for that, too adult.

Yet with the very first comic book superhero, science fiction neatly merged with fantasy. In 1938, Superman made his debut in *Action Comics.* Jerry Siegel and Joe Shuster made him a physical superman much in the mold of Philip Wylie's *Gladiator,* published eight years before. Superman was an alien being, sent from Krypton by his parents

before the explosion of their home-world. Like pre-war America, the young Superman began to stretch his unEarthly muscles and reveal his new powers, thoroughly enjoying himself. He was on the side of the oppressed, whomever they might be, even if he had to temporarily circumvent the law. This must have been refreshing to people seeing the light at the end of a long Depression. Superman caught on. He was a mirror of our mood, and remains that to this day.

In time, Superman began to think about his past. In 1948 his biography was given more depth. Superman's father, Jor-El, had tried valiantly to save Krypton but had failed, unable to convince his fellow scientists that doom was approaching. To save his son, Kal-El, Jor-El sent him to the planet Earth in an infant-sized space ship. Jor-El seemed to know that the drama might be played over again, and that perhaps Kal-El would succeed where his father had failed, by saving Earth from itself.

The 1940s quickly blended into the 1950s. Under the cruel pressure of Korea, the United States seemed to shrink into itself. From long-gone Krypton came a host of fellow survivors, including Supergirl, the miniature city-in-a-bottle of Kandor, and Krypto, a superdog. In short, the '50s supplied Superman with a freshly tailored set of relatives—a nuclear family. The publishers introduced new comics in which Superman became a subsidiary figure, playing second or even third fiddle to Jimmy Olsen and Lois Lane.

While Superman ran out of heroics and became submerged in soap opera, his perils became more

varied, more confusing. Ordinary green kryptonite—meteoroid fragments from his home world—was not enough. Red kryptonite put him through strange transformations. Gold kryptonite could permanently rob him of his powers. White kryptonite affected plant life.

In an America uneasy about the Beat culture, Superman hosted the Bizarros, counterculture replicas of himself and Lois Lane who did everything the reverse of their originals. Blue kryptonite affected them. And rainbow kryptonite—who knew where it might all lead!

The vision was getting lost in the demand of endless stories for a mass market. In a 1961 "Imaginary Story"—to be distinguished from the historical and continuous narratives—Superman died. The story, written by co-creator Siegel, was sentimental and affecting. In a sense, it was not imaginary at all. The Superman concept had become overextended, subject to too many diverse and commercial demands. Siegel committed a symbolic mercy killing.

But heroes—especially *commercial* heroes—can never truly die. From that time on, Superman's ghost has lingered, reaching occasional peaks of brightness, but for the most part carrying on a long-stale tradition.

In the 1970s, Superman even came to realize that between black and white lurk insidious shades of gray. Forced to look into the issues of a damaged ecology and corruption in business, in a 1976 story written by Gerry Conway, a frantic Superman tries to hurl a supertanker into orbit. He can't. The ship

breaks in half and creates a horrendous oil spill. Learning that the owners of an asbestos factory don't care about their endangered employees, Superman destroys the factory. This is more like the Superman of the late '30s, but now he operates under compulsion. He needs to save Earth from itself, re-enacting the attempt of Jor-El to save Krypton. Son Kal-El is no longer self-assured. Even Superman is no longer capable of solving the ambiguous, adult problems of the modern world.

The vision fades...

And now, like Nonnos called in centuries later to spruce up the old gods, cinema moguls have looked upon this scarred, battered figure in red, blue, and yellow—and have seen a beautiful shade of green: money, enough to make Superman fly as he has never flown before.

Superman—The Movie very nearly succeeds. Its creators' task is awesome. Not only must they supply believable special effects and devise wondrous new deeds, but they must revive the tired old boy in a way credible to the late '70s. What the producers have in money, however, they lack in sense of direction.

The film-makers know that their Superman has to play to both adults and children. Will adults sit still for a serious presentation? For the first half of the film, they have decided that wonder and beauty and true heroism should override all. They show us Krypton, ancient and cold, with crystalline architecture; they show us Krypton's demise, and Kal-El's flight through space and time to Earth. Smallville and the young Clark Kent are just as we thought they would be. His foster father's death is genuinely

affecting. Emphasis is placed on wonder and the gift of unsupported flight. When these visions fill the screen, we believe and our hearts lift.

But suddenly the music changes, and camp, clumsiness, and irreverent humor intrude. The magic dissipates. Superman, it appears, has come all the way from Krypton to fight *clowns*. Can truth, justice, and the American way still play in Metropolis? They are as fragile these days as fairies. When Superman is grounded by comic relief, Truth and Justice merit a horse-laugh.

If we must flesh out our old gods in expensive new tales, the least we can do is take better advantage of the wider canvas the past could not give them. Heroes represent much that is important in us. If we have limited them and confined them by serial presentations on cheap paper, then let's redeem our impiety by picturing them on the cinema screen as we would have ourselves be: noble, witty, self-confident; not burdened by power, but uplifted, forever ready to do battle against evil.

The first Superman feature has been followed by two others, and a fourth is in production. These movies have been simply bad. The third travesty is painful and embarrassing. In movies, it seems we must cling to the first half of the first film; we will not likely get anything better.

Frank Miller's DC Comics "Dark Knight" series, a revivification of the Batman, makes no pretense at appealing to children. This is gritty, pessimistic, hard-bitten material, violent and brutal, with horribly simplified villains and an aging Batman who may

be crazy. Miller's work is gripping and powerful, but weakens when an imperialist toady Superman is introduced to combat the perceived menace of the Batman. This Superman is waging constant war against America's enemies, bashing communist jets, wreaking havoc in foreign lands. Miller's Batman is truer to the original Batman than anything we've seen in decades; his Superman, however, is simply not the Superman I know and love. Myths transform.

The big guy'll be back, just when we need him.

THE SHINING

In the last few years, I've gotten a reputation as a hard science fiction writer, despite a number of odd stories and a novel or three that don't fit that description. And I suppose my first love will always be hard SF. But I'm also an avid reader of horror and dark fantasy, with a particular taste for the well-told ghost story. Stephen King's The Shining *ranks, in my opinion, very close to Shirley Jackson's* The Haunting of Hill House *as a classic of this small field; other favorites include Kingsley Amis's* The Green Man. *I'm fond of Peter Straub's* Ghost Story, *a fine novel, but more successful as a novel than a ghost story... Whatever* that *means.*

The combination of King and Kubrick seemed quite intriguing. The result was both a top-notch film and a disappointment. This piece was rejected by Letofsky and has not been published; it came too close, I suppose, to film criticism or even reviewing. Also, while The Shining *did well as a film, it was not the kind of "blockbuster with legs" that the*

Calendar section required for the specialist pieces I wrote.

The haunted house is a fixed feature in our minds—old, deserted, decrepit or filled with cobwebs, an antique-hunter's paradise if only one dared go inside. The residue of those who lived and died there—perhaps their very souls—troubles the place, condemns it. In these times of housing shortages and outrageous real-estate prices, what could be more horrible than a big old house that can't be lived in?

Yet for me, haunted houses are a comfort to contemplate. They are lived in, if not by the living—if not by the sane—and so in a way they are like our own bodies. Our bodies are haunted by our selves. When we are deranged, or unable to face up to life, we become decrepit, difficult to live with . . .

Haunted houses "speak to our condition."

They also give us hope for existence after death, even if it's miserable.

Fiction about haunted houses goes a step farther. It puts the haunted house back in our mind, in territory where its reality cannot be questioned, and its manifestations are without limit. But good haunted house fictions are extremely rare, in print or on film. Most merely play upon old cliches, or re-tell old stories, witness *The Changeling,* a recent entry with fine production values and not a great deal of imagination or excitement. New wrinkles in the ghostly sheets are hard to come by.

Stephen King, one of the most popular authors in America, is well-schooled in the literature and the cinema of horror. His only pure ghost novel, *The*

Shining, takes a new wrinkle and stitches it into a full garment, rich with character and incident and life—as well as violence, evil and depravity. The weave is compelling.

Stanley Kubrick, one of the most respected directors in the world, frequently deals with fantastic themes. But Kubrick and King are on opposite shores of the same ocean. King's novel is carefully constructed. He has done his homework across a lifetime (in *Salem's Lot,* he combined the ancient horror themes of haunted house and vampire) and he genuinely loves the subject. Kubrick's film of *The Shining,* for all its technical expertise, is a stripped and considerably reworked version. Most of King's carefully planned characterizations are disposed of, and his underlying metaphysic—something essential to a good ghost story—is treated clumsily, especially by Kubrick's rigorous standards. Not only does Kubrick not believe in ghosts, he is not sure *we* will, either. His uncertainty undermines much of the movie.

Why does a ghost story need a metaphysic, a background theory of hauntings that is consistent and convincing? Because a ghost story—despite Hans Holzer's pretensions—is a *fantasy,* and fantasy relies on the audience's willing suspension of disbelief. To earn that suspension, the author or filmmaker must show that he respects the idea, perhaps even believes it to an extent. The slightest condescension—as in a story where natural explanations conclude the supernatural events—destroys the effect.

Disbelief or crass exploitation taints the pudding,

and a good ghost story is nothing if not a literary dessert.

The very best ghost stories—and there are only a handful—leave us with a nagging suspicion that the world is not all that clear-cut or benevolent. Shirley Jackson's masterpiece *The Haunting of Hill House* is quoted in the opening pages of *Salem's Lot:* "Silence lay steadily against the wood and stone of Hill House, and whatever walked there, walked alone." Robert Wise's 1963 film of Jackson's novel, *The Haunting,* preserves this mood of dark fascination, and remains the best ghost movie of all time—without showing a single ghost.

Richard Matheson's homage to Jackson, *Hell House,* was adapted into the energetic and effective *The Legend of Hell House,* directed by John Hough, in 1973. Hough and Matheson worked to contribute new touches to the horror genre, while staying within traditional settings. Jack Clayton's 1961 version of Henry James's *The Turn of the Screw, The Innocents,* is a definitive example of the "ghost or maybe it's the id" variation, a trick that cannot be done too often without eliciting groans.

What King adds to this worthy list is easy to feel and hard to define. *The Shining* is filled with parallel themes, and imbued with a moralistic view of the universe. The novel's protagonist, Jack Torrance, is a basically good man with serious problems that he is on his way to overcoming. When he becomes caretaker of the Overlook Hotel, the hotel's past history of evil and depravity is heightened by the ESP of Torrance's son, Danny, and both son and father become victims.

Danny is purity itself, a young boy we can all identify with. He is bewildered by the adult world and by his ability to see into the minds of adults. King brilliantly describes Danny's reactions to the messages he receives from the hotel's inhabitants, alive and dead. Perhaps most striking is Danny's discovery of a clock in the hotel's east ballroom. The clock has little mannequins that engage in sex acts. Danny looks at the mannequins and is dismayed to discover that "They were kissing pee-pees." This kind of detail—so real, yet delicately balanced on the edge of the ridiculous—elevates the novel to a higher literary plane than that usually reserved for simple scary stories.

Kubrick's world-view, on the other hand, is not in the least moralistic. The world in his films is often cruel and absurd. Perhaps second-guessing himself as well as King, Kubrick eliminates most of the characterizing detail and goes straight for the suspense. But what is suspense if we care little about those in danger? Jack Nicholson's Torrance is not far from cruel madness when we first meet him. Shelley Duvall's Wendy Torrance seems weak to stay with him and take his abuse. Even Danny's character has been reduced to a minimum, and his psychic alter-ego, Tony, is made into a kind of one-spook Greek chorus. Yet Danny's moments with Tony are effective enough; what confuses the issue is Kubrick's attempt to bring the supernatural down to purely physical terms, events which can be filmed with a minimum of special effects. Tony becomes Danny's altered voice and his crooked finger moving in rhythm. Most of the

Overlook's ghosts are quite solid and seem very much alive.

Kubrick, however, could not avoid the issue of the lady in room 237 (in the book, 217). The lady in room 237—who died in her room's bathtub, decayed, and now re-dies the experience—is a veritable succubus. She terrifies Danny offscreen, and then tempts Jack Torrance by appearing as a beautiful naked young woman. When Torrance clutches her, she turns into the old corpse. This is a favorite theme with writers such as Jan Potocki, but it's not the effect King was after. In King's universe, evil cannot manifest as beauty; in Kubrick's, beauty might very well be evil.

In the film, Torrance later behaves as if the incident never happened, a transformation that leads the audience to wonder if it was all in his mind. Yet we have seen the marks of the corpse's fingers around Danny's neck, and Danny "sees" his father's experiences mentally while remembering his own.

The metaphysic is very shaky.

Are we being led to believe this is a psychological haunting, as may be the case for the governess in *The Turn of the Screw*? Kubrick seems to be trying for such an effect, but he is overwhelmed by the basic requirements of the plot. Jack Torrance *must* be released from his storage-room lock-up by a ghost; Danny *must* be seeing actual residues of past horrors, because others see them, too. And Danny's ESP is accepted from the start.

Kubrick takes an inexplicable step further, into sensationalist effect, when Wendy Torrance experiences a series of visions. A hotel lounge is suddenly populated by cobwebs and rotting corpses in evening

dress. The pure shock value of these scenes is negated by their staged appearance; they counter the style of all the previous hauntings, and do not seem to belong.

Where Kubrick does succeed, and brilliantly, is in bringing the element of color into his horror story. The queasy design of room 237, with purple and green carpets and walls striped in pale gold, while not beyond belief, is reminiscent of a bad LSD trip. A restroom off the hotel's Colorado Ballroom is red and white, two of the most powerful alchemical colors. Replayed several times is a premonition of disaster, an elevator door opening to flood us in a river of dark red blood.

Design may be the most successful element in the film.

There were difficulties during the filming—including the burning and reconstruction of major sets—which could have exhausted the most indefatigable director. The novel is very long, and condensation into a shooting script must have been arduous and full of hard choices for screenwriters Kubrick and Diane Johnson. But the errors that were made—unsympathetic characters, not establishing a consistent history for the Overlook, and avoiding most of King's strongest points—are obvious.

Jack Torrance should have fallen into his madness from a higher diving board; Nicholson's portrayal sits at poolside from the very beginning. Wendy Torrance should have demonstrated more independence and gutsy ability. Duvall's performance is commendable, but not stirring. The one completely sympathetic adult character—Scatman Crothers's Dick Hallorann—is rewarded for a heroic rescue

attempt with a peremptory ax in the stomach. (In the novel, he survives.)

Kubrick's conclusion, while visually simple and elegant, packs little of the wallop of King's ending. But I might have accepted that, if King's characters and ideas had not been discarded in search of some elusive cinematic purity.

What Kubrick contributes to the short list of haunted house movies worth seeing is a steady touch with the camera—the least we expect from a cinematic master; the use of color to scare us in ways unexplored until now; and a fine attention to design detail. What he does not contribute is a movie that comes alive, and that, considering the subject matter, is regrettable and ironic.

Kubrick directed and co-wrote the film that has probably had more influence on me than any other motion picture, 2001: A Space Odyssey. *I have seen most of his films several times;* 2001 *I have seen at least fifty times, and perhaps sixty. While one side of me adores the movie as much as when I first saw it—I was sixteen at the time—another part now charts the general decline in Kubrick's regard for his characters after* Dr. Strangelove. *Not even the lavish* Barry Lyndon *evokes much human sympathy. The perfect and perfectly corrupt* A Clockwork Orange *adheres to the American redaction of Burgess's novel, with Alex back to his bad old ways by the film's end. I look forward to Kubrick's Vietnam film,* Full Metal Jacket, *wondering if—hoping that—Kubrick is mellowing, and will treat the human race with less icy contempt.*

SPIRITLESS NIGHT IN ROOM 502

In October of 1979, the San Diego Union *paid for a night at the Hotel Del Coronado. Everything described below actually happened.*

We arrived at the venerable Hotel Del Coronado and checked in at the front desk.

"We have reservations for room 502," I said ominously. The attractive brunette clerk asked my name and how many would be staying in the room. "Three," I replied.

"But there are only two single beds," she said, examining me with a hint of suspicion.

"We will *not* be sleeping," I said, and her suspicion deepened.

"Are you three..." She lifted a hand and waggled it like a signaling airplane. "...psychics?"

"Not at all. Just serious investigators."

Deep inside everyone, there is a Halloween desire to become a psychic detective, a Carnacki or John Silence; to check out stories of spooks and hauntings

and spend the evening in the company of a ghost or two.

The prospect is so attractive that San Diego's famous Whaley House has to turn down dozens of requests a year.

Less famous haunted houses abound in the San Diego area, but they are usually occupied by the living, who are usually reluctant to allow strangers, let alone ghost-hunters, into their lives. Some of the ghostly residents are reputed to be pleasant and friendly, after all, and not a bit menacing.

The Hotel Del Coronado is now ninety-two years old, filled with history and the memories of famous residents. Every hotel has a room with a ghastly reputation; in the Hotel Del, as it's called by its friends if not its staff, the hauntings allegedly occur in room 502, or 3502, according to the current numbering system.

Joining me on this sunset journey to the spirit world was David Clark, world traveler and an employee of one of San Diego's finest bookstores, Wahrenbrocks. Our spiritual advisor was James Ford, employed at the same bookstore and an expert in the occult.

Clark brought a camera. I came equipped with the highest scientific intentions and another camera. Ford provided clerical robes, holy water, and bell, book, and candle. But our intent was not to exorcise room 502, merely to study it.

In the Hotel Del Coronado's early days, the story goes, a female guest entered room 502 and never emerged. Details have long since been forgotten; no one remembers who she was (some say a personal

maid; this room was once part of a block of servants' quarters). No one knows whether the woman was kidnapped, murdered, or simply absorbed into the woodwork. If the latter, she was going to be difficult to spot. The room had been completely redecorated and painted.

But for now, standing at the reception desk, we knew not just what awaited us in room 502. Hefting our equipment, we took the antique brass cage elevator beyond the lobby floors of beautiful red carpeting and oak paneling and emerged in the cheery yellow maze of the upper floors. Our intrepid band approached room 502 through narrow halls, making many false turns, until we arrived at the door.

Room 502 occupied a corner, surrounded on two sides by hallway. On the side around the corner from the door, curtained windows opened onto the hall. This was clearly unusual. 502 was not the room I would choose for a noisy tryst. It did not seem a fine and private place in which to be stuck for eternity.

We put our ears to the door for a moment. The room sounded empty. Putting the key in the lock, we stood back, braced ourselves, and flung the door wide.

The door vibrated on its hinges and swung back slowly. We sniffed for noxious vapors. Nothing.

As we entered 502, it immediately became obvious why this room was so seldom occupied. Only a servant traveling with his or her well-to-do employer might think the accommodations luxurious. The room was small, well-kept and freshly painted, but more like a ship's cabin than a room in a swank hotel.

Twin beds flanked furniture and nightstand, which with our amateur eyes, we dated from the 1920s. Worst of all, the room was not oppressively cold—which we might have expected from legends of "cold spots"—but hot and rather muggy.

Settling into our room for the night, we laid out our equipment on the beds and made our plans. Ford arranged his apparel and produced a vial containing a colorless liquid. "What's that?" I asked, unaware at the time of his thoroughness.

"Holy water," he said, unscrewing the cap. His fingers slipped. A few drops scattered across his palm. Raising an eyebrow, he restrained an oath. "Should anything happen," he said, dropping his tone sadly, "we are in *real* trouble."

We were without traditional armament, and the night was young.

Our schedule was tight. First, we would inspect the hotel and its grounds, acquainting ourselves with the employees' attitudes about 502. Then we would return to spend the crucial hours between eleven p.m. and one a.m. in the room.

Again at the front desk, cameras slung around our necks, looking for all the world like photographers from *Life* magazine—or so we hoped—we were placed in the able hands of a bellhop named Dave. Dave told us that 502 was the worst room in the hotel, surpassed only by 501, which had only one single bed. He had heard stories about the "haunted" room, but for him the worst specter of all was the one of vanishing tips. Taking luggage to 502 guaranteed coming back empty-handed.

"Usually, I just open the door," he said, "and tell

them they don't want this room, not really. Then I take them elsewhere."

I asked him what he knew about the permanent guest of 502.

"I haven't been here that long," he said, "but I heard a woman was walled into the room by her husband."

This did not match the story I had heard, so I told him my version.

"Oh, you mean like in *Bid Time Return*?" he asked.

In the novel by Richard Matheson, a man from our time falls in love with the picture of an actress from the 1890s and convinces himself he can travel into the past to be with her. He can do this only by divesting himself of any material reminder of the present, however, and his attempt is doomed to ultimate failure when he forgets to remove a modern penny from his pocket. The man later disappears from room 527 of the Hotel Del Coronado, a variation on the legend of room 502. (Matheson visited Wahrenbrocks for research and mentioned it in his novel.)

Dave then showed us 501, and to balance our perspective, one of the hotel's finest rooms, which was elegant and large and looked comfortable. I sighed in despair over the bad taste of ghosts.

Concluding our tour, we began our vigil in 502. Loading our cameras with infrared and Tri-X black and white film, we swept the room with pictures every fifteen minutes. Making a map and recording all the pertinent information, we noted the exposures in a comprehensive photo diary. We then shut out the lights and spent a half hour in darkness and

silence—that is, whatever darkness and silence could be found in a room with a window opening onto a hotel corridor.

To our relief, something made a noise—a clicking sound. I jumped from my seat to investigate. The noise came from the closet. I opened the door slowly, and realized there was something else peculiar, even disturbing, about room 502.

The closet had a window. It opened onto the hotel exterior. The noise was coming through this window from the outside. Looking through the window, I didn't locate the source immediately; the noise had stopped. A few minutes later, we heard it again, and managed to trace it to a small rectangular tower on the hotel roof, about forty feet away. A bright light flashed in the tower's square window. Could this be something worth looking into? Perhaps later... For the time being, we would not be *distracted* from our quest. Surely this is just what *they* would have wished.

502 itself was quite silent and peaceful. We eventually managed to ignore the clicking sounds from the tower, and went about our business. The tape recorder in one corner buzzed rhythmically. We played chess and read and talked. Another half-hour silence was maintained, our ears alert for something unusual *within* the room. Ford claimed he heard something like a woman's sigh, but it was more likely a faint drip in the bathroom sink.

Hearing footsteps outside, and over-eager for some unusual phenomena, I flung the door open and nearly scared a security guard to death. He removed his hand from his holstered revolver and explained

that he, too, had been working in the hotel for only a short time. He had heard a story about 502 already, however. He had heard the maintenance crew talking about slipping cards under the door of 502, into the locked and empty room, and having them returned through the crack *opposite side up.* After he left, we investigated this story by examining the bottom of the door. The room's floor level was a couple of inches higher than the outside corridor. The door fit flush into this slight step, on a level with the outside floor. The cards must have been oddly L-shaped to crawl up over the step and back down again.

Perhaps the maintenance crew had more of an acquaintance with spirits than management would have thought appropriate.

On another pass, the guard informed us that the noises in the tower outside the closet window came from maintenance people fixing vents and blowers leading up from a kitchen. The tower also contained elevator switching machinery.

At six a.m., tired and hungry, we stopped our picture-taking and left for breakfast. Various hotel personnel had told us that a woman had been murdered in the room and that noises had been heard while it was empty.

For us, however, the night had passed in peaceful companionship.

Our film, when developed, proved as innocent as the evening. There were no ghostly faces, no need for the spilled holy water. As for the tapes, I have played them through many times, at high volume and low. Only our voices and the sounds of distant traffic are to be heard.

Yet we had been "blooded," however empty our bag of game. The desire to see a ghost, to become a Carnacki or a John Silence, is far too strong to be subdued by one negative evening.

We have not been in another situation of such peril and excitement since. But we are ready.

Anybody know of a haunted house?

We'll bring the deck of cards.

FAHRENHEIT 451— A 1984 WITH HOPE

Ray Bradbury has been a friend and correspondent since I was a teen-ager, a frequent source of encouragement and a role model of considerable influence. Through the years, I attended his ill-fated 1972 production of Leviathan '99, *which closed within a week and left him $80,000 in debt, but missed the Los Angeles productions of* Dandelion Wine. *When he connected with the Colony Players and the Studio Theater Playhouse for a long-running production of* The Martian Chronicles, *I was there—and enthusiastic. Their later production of* Fahrenheit 451 *in 1979 was in some respects even more challenging and interesting.*

This piece was published in the San Diego Union *in October, 1979.*

What could be more difficult than bringing the future to the stage? Especially a future of grim, dark firemen, flamethrowers, and robot hounds? Now, the

Colony Players at the Studio Theater Playhouse in Los Angeles have done just that with Ray Bradbury's classic, *Fahrenheit 451.*

Talking about the stage adaptation, which he wrote himself, Bradbury says, "It isn't just a rewrite. It's a new play. There's a difference. I just started from scratch. There's no dialogue in the play that's from the book—only a few touches here and there."

As Bradbury tells the story, the idea for *Fahrenheit 451* began when he was walking with a friend one night in 1950. A policeman stopped them and asked what they were doing. "We're putting one foot in front of the other," Bradbury responded.

The policeman didn't take kindly to such flippancy. More questions followed, with more obvious answers. Bradbury was so incensed at being interrogated about such commonplace activity that he popped crackers into his mouth and sprayed crumbs at the policeman with his replies.

After being dismissed with a stern warning, in the heat of his anger, Bradbury returned home and wrote a short story, "The Pedestrian." Several years earlier, he had written a short story called "Bright Phoenix," about the closing of libraries in a repressive society. The images met and multiplied.

In Bradbury's mind, the Pedestrian—strange and lonely, harassed on the streets—became a girl, Clarisse. When Clarisse walks, she meets a fireman. Fireman are burners of books in a world where all houses are fireproof. Readers and thinkers are undesirables, anti-social; banned.

The fireman, Montag, obeys his superiors and has no doubts about his job. But subjected to the

temptation of confiscated books—and to the light-hearted questions of Clarisse, a complete contrast to his TV-drugged wife—he finally begins to read and soon changes from robot-like oppressor to rebel.

It was a simple and effective vision, spurred by the idiocy of McCarthy and the fervent, anti-intellectual attitude of much of the American public. Yet, as Bradbury looks back upon those years, he downplays the part that the politics of the time played in writing the novel.

"There were threats, but they were never carried out. Most of our book-burning occurs among librarians and always has. They refuse to buy books, and that's bookburning right there."*

In 1951, a novella, "The Fireman," was published in *Galaxy* magazine. Still taken by the idea, Bradbury expanded the novella into a novel. He called the Los Angeles fire chief and asked at what temperature book paper caught fire and burned. "451 Fahrenheit" was the answer.

Since then, *Fahrenheit 451* has been published around the world. In 1966, Francois Truffaut made a movie of the novel, the most successful attempt to date to put Bradbury's work on the screen as a feature.

This book about books and book people—once published between asbestos boards in a limited edition—became a parable for our culture, in some ways more appropriate for America than Orwell's *1984*.

"But it's appropriate for all countries," Bradbury maintains. "Everywhere in the world books are burned. We are so impatient with each other's ideas.

And *Fahrenheit 451* is better than *1984* because it gives more hope for the future."

Bradbury's optimism in the 1970s differs from his optimism in the 1950s, however. In the novel, Bradbury's strife-torn society purges itself in nuclear war. Only the "book people," who have gotten around the laws by memorizing books and then discarding them, survive the holocaust.

The novel's hope lies in the return of the exiles to the ruined cities, where they will rebuild. The world will arise from its ashes like a phoenix. This is a somewhat brighter myth than Orwell's unrelenting, bleak vision of the future, but *Fahrenheit 451* expresses an inherent grim pessimism about the ability of some elements in society to see reason.

Ironically, in the middle sixties, the influence of these elements spurred Bradbury's publishers to sabotage the novel itself. Ballantine Books presented an edition intended for use in schools, a "Bal-Hi" edition. Without Bradbury's knowledge or permission, they deleted all the novel's swear words.

In the early 1970s, police raided a bookstore in Laguna Beach and confiscated underground literature, trying in several unsuccessful court cases to label the counter-culture "comic books" obscene. The name of the bookstore was Fahrenheit 451.

Every year, some author or another is plucked from the shelves of the school libraries with a brief flurry of publicity. In the past, Edgar Rice Burroughs, Mark Twain, and dozens of other writers across the literary spectrum have been censored by such removal. L. Frank Baum's "Wizard of Oz" books have been snatched from children's hands—along

with original fairy tales — because of so-called undesirable and bizarre imaginings. Each time, the officials involved refuse to call what they are doing censorship. Censorship as a word is itself obscene in America; the act, apparently, is not.

But times have changed since the 1950s, and the play now emphasizes more topical, disturbing tendencies in society. As Bradbury points out, books are attacked under guises other than obscenity — as politically unenlightened (anti-feminist, anti-black, anti-liberal), or simply as non-literary.

Bradbury decided that for the play version, he would take the opportunity to re-shape the novel's simple vision. His changes strengthen some aspects and weaken others.

Fire Captain Beatty, Montag's mentor, emerges in the new version as a mirror to Montag, a tragic ringmaster of rhetoric. Montag himself is oddly restrained. While his transformation from unquestioning fireman to rebel still proceeds in stages familiar to the book's readers, responsibility for his actions have for the most part been taken from his hands.

Beatty practically forces Montag to read a book. Towards the climax, it is not Montag who argues with Beatty — a fireworks battle of philosophy — but Montag's new mentor, Faber, feeding him lines through a seashell transceiver in the former fireman's ear.

Montag has become less of a doer and more of a reflection, a pilgrim bouncing from guru to guru, character to character: Clarisse, Mrs. Hudson (an old woman who chooses to die in conflagration with her

books), Montag's wife Mildred, Beatty, and Faber himself.

After trial runs in August and September, *Fahrenheit 451* and Bradbury's *The Martian Chronicles* officially open this week, each playing two nights a week at the Studio Theater Playhouse. *Martian* will be on at 8 p.m. Thursday and Friday, followed by *Fahrenheit* on Saturday and Sunday. This will be repeated each weekend at least through November.

** This statement brought Bradbury at least one angry letter from a librarian, who believed budgetary constraints kept librarians from buying books far more often than political beliefs. What Bradbury was getting at here, I'm not sure; perhaps he had a specific incident in mind.*

THE MACHINERIES OF JOY

In October of 1983, I traveled from San Diego to Los Angeles and San Francisco, researching this article for Omni Magazine. *What I saw astonished me... and influenced me heavily when I went on to write the novel-length* Blood Music *and* Eon. *Here was not the beginning of the computer graphics revolution, but the beginning of the* flowering *of that revolution. I could hardly restrain my enthusiasm. I suspect the last few chapters of this piece will date badly as time goes by, but they show my frame of mind. And the frames of mind of dozens of other authors, as well; the information age has taken science fiction by storm.*

Omni *never used this piece, although they paid me for it. Nor did they use the hundreds of pictures I gathered, a selection from which would have accompanied it. Many people gave generously of their time, yet never saw their names or ideas in print. I hope this first publication pays them back in some small measure.*

The circumstances described below have, of course, changed considerably. Digital Productions has changed hands and management; Robert Abel and Associates is no longer an independent company, and so on. The revolution has become even more stimulating and promising. Its effects are everywhere.

"Dinosaurs!" The artist spreads his arms as if to embrace them. "I need the exact specifications—gridwork layouts of bones, muscles, scale patterns." The artist's office is covered with drawings of spaceships and alien beings, strange landscapes and mechanical diagrams. "If I have those, I can put them into the computer. We can program each muscle, make the skin ripple over the muscles. Tell the computer how they took a step, how they fought..."

And once again, dinosaurs will walk and fight. The artist is living a childhood daydream: he has the power to bring dead creatures to life. Even more remarkable, he has the power—with the aid of dozens of technicians, programmers, and fellow artists—to film objects that have never existed in any material form and make them interact with live actors.

But dinosaurs are a future project. The matter immediately at hand is a space battle. At night, within a stark white-walled enclave, the artist, director, and technician sit before a video monitor, examining the progressive stages of a nonexistent spaceship's destruction. Highly detailed ships—com-

plete with crew—are dueling to the finish. One spaceship is destined not to survive; its hull is disassembled in the first of six boxes on the monitor. The early stages of an expanding blast are overlaid in subsequent boxes.

The artist describes an explosion in space. "I'd like the whole screen to flash white for one frame. Next we see an opaque fireball—fuzzy at the edges—surrounding the debris." He demonstrates an expanding sphere with hand gestures. "Then we ramp it down to transparency as the fireball grows." (To "ramp" is to smoothly increase or decrease any function.) "When the shockwave passes, all the little stuff—gases and tiny fragments—fly past and then we see the big scraps, a little slower, not as much energy." His grin is gleeful now. The director nods in agreement; this is, indeed, an explosion in space, not your usual smoke-and-fireworks exhibit.

The stages of the explosion are being fed into powerful computers, isolated beyond glass walls at the opposite end of the studio in a pristine white-floored environment. Artist, director and technician are playing god games in an unreal universe.

Ultimately, it is all numbers, points charted in a space of three dimensions within a computer. Each number represents part of the position of a pixel, or picture element, millions of which go together to form a shape. It is the computer's duty to keep track of the numbers, and the shapes they represent. Perspective, color, shadow, motion, must all be processed with scrupulous accuracy or the apparent reality will collapse.

The numbers are then converted to signals which

can be displayed on a monitor. The pixels assemble, and a spaceship is destroyed, frame by frame. When the result is printed onto film, it will be indistinguishable from very high-grade special effects accomplished with painstaking model work.

It will look as real as anything else in the finished motion picture.

The artist, director, and technician are, of course, fictitious, and the scenario is a technological fantasy, not to be realized for years, perhaps decades to come—

And if you believe *that*, you haven't been keeping track of recent advances in the incredible field of computer graphics.

It is happening now.

The artist is veteran production designer Ron Cobb *(Alien, Conan the Barbarian)* the director is Nick Castle *(Tag, Skatetown U.S.A.)*, and the motion picture is *The Last Starfighter*, a joint Universal-Lorimar production. Under the auspices of Los Angeles-based Digital Productions, headed by John Whitney Jr., all of the special effects for *The Last Starfighter* are being done by digital scene simulation—computer graphics designed to match reality. Using two powerful Cray super-computers and a phalanx of other machines, Digital Productions is taking a gamble—some say a big gamble—by committing itself wholeheartedly to the future.

The future of computer graphics will be extraordinary. Most of the experts in the field—the best can still be numbered on two hands—agree that we are on the verge of a revolution perhaps more basic and disruptive than Gutenberg's movable type.

Communications and education will be fundamentally reshaped. The entertainment industry will experience changes far more drastic than the transition from silent movies to talkies, and talkies to TV.

The power that presently resides in the hands of a knowledgeable few, will soon be available to all.

But first, back to the numbers.

The world of the computer is a very simple one. Everything is broken down into bits, a bit being the information required to answer any question with yes or no; in binary, yes equals 1, and no equals 0. Binary numbers consist of chains of ones and zeros. (In binary, 01 equals one, but 10 equals two.) More elaborate codes have been created to relate letters and symbols to certain numbers—thus allowing computers to display both numbers and text. Other codes relate the positions of glowing dots on a video screen using coordinates much like those on a map. A picture can be "digitized"—broken down into these numbered positions—and put into a computer, which can then manipulate the picture in a wide variety of ways.

A picture can also be formed within the computer by charting key elements on a graph, feeding the computer coordinates, and instructing it to draw lines or curves between the points. Mathematical equations which determine fixed geometric figures or curves can simplify the process; the computer can be instructed to draw a circle of a certain diameter around a point, or an ellipse; to trace out a square and expand it into a cube, and so on.

In fact, a "space" is determined within the

computer, having three or more dimensions, and any object can be described within that space, given sufficiently detailed coordinates. If the object is simple, like a cone, a "lathe" program can rotate a triangle around an axis to form a cone, or a circle can be turned around any diameter to create a sphere, much as a shape is spun from a block of wood on a lathe. More complex, irregular shapes take more complicated instructions, and much more time.

Once the object is constructed in a simple line drawing, or "wireframe," additional programs can add a light source to give it highlight and cast a shadow. Colors and textures can be "mapped" on its surface. A point of view can be established, and what is not seen from that point of view—the back of the object—can be clipped, making it appear opaque and solid.

The process seems simple enough, but in reality the work involved in creating real-seeming objects on today's machines is extensive. The most complicated methods of creating objects in a computer—such as a technique called "ray tracing"—can take weeks of computer time. Simpler techniques can reduce the time to fractions of a second, but with a corresponding loss of color, shadow, and detail.

Once the object's numbers have been fed into the computer, the computer knows what the object looks like from all sides, at any distance, in relation to any other object or perspective within the machine's memory. A nonexistent spaceship can be made to zoom past a simulated planet, approach a much larger "mother ship" and dock inside a highly detailed landing bay, all in perfect perspective.

The computer can then display the objects in two dimensions on a video screen, or send signals to a printer to transfer images to film. Since the object has actually been mapped in more than two dimensions, the computer can be instructed to project two points of view, creating a parallax similar to that between our two eyes. The slightly separated images can be combined stereoscopically for a realistic feeling of depth.

If the film image needs to be "squeezed" anamorphically onto 35mm stock for later projection on a wide screen, the computer can do that, as well. Any required lens can be simulated within the machine.

In the 1950s, artists and programmers began to pioneer the techniques still being elaborated upon today. John Whitney Sr. was among the earliest, starting in the late 1940s. He later received the first IBM grant to study computer graphics in detail, and was installed in a ground-floor corner window of the IBM building in New York, displaying images for passers-by.

Bill Fetter began exploring the possibilities of wireframe animation at Boeing in the late 1950s, and assembled the first computer-generated commercial in the late 1960s.

In the early seventies, Ken Knowlton and Michael Noll came on the scene—Knowlton working for Bell Labs, and Noll arranging for the first gallery showing of computer art. Noll's specialty was simulating "clay paintings"—made with plasticine—using computer images. Many viewers couldn't tell which were pictures of real clay paintings, and which were simulated.

In the last ten years, the progress has been astonishing; around the world, computers are helping to create images for scientific research, education, fine art, and entertainment.

Sometimes the divisions between these categories are erased; the enchanting beauty of a moving computer image can turn a prosaic enterprise—such as stress analysis of pipe joints—into art.

The most extensive use of computer animation has been in advertising. Already familiar to TV viewers are the plethora of "neon"-look commercials for banks, airlines, and automobile manufacturers.

Generically, computer animation relying on line graphics is known as "vector" animation. Using various animation techniques—inside and outside the computer—the lines of these "wireframe" drawings can be made to glow like neon tubes. This look has become so widespread that within the industry it is becoming a cliche, to be avoided if possible.

Filling in a wireframe object with color, shadow, and texture is called "raster graphics" or "raster" animation. This requires a more powerful computer, such as the Evans and Sutherland, or the Digital Equipment Corporation VAX machines commonly found in commercial studios.

Some interesting effects can be obtained by fudging (not a technical term). The surface of an object to be vector-animated can be covered with "cross-hatching," using more lines instead of full raster graphics. This is known as "psuedo-raster" animation and can be charming, even though it falls in a middle range likely to be used less often as

equipment and programming improve.

Crude raster graphics can be judged by "aliasing"—the appearance of the "jaggies" along an object's edges. Each pixel stands out against a contrasting color, and when the object moves, the pixels can appear to march along the edge. These can be eliminated by coloring alternating edge pixels in shades that mediate between the contrasting colors. The border is softened slightly, and the graphics are said to be "anti-aliased."

The most powerful computers available to animators—the Cray series (the Cray 1, an expanded version called the Cray XMP, and a much smaller, even faster Cray 2) usually reside in defense establishments and major research laboratories. Digital Productions is the only private effects studio that owns Crays. The Cray corporation is reluctant to release the locations of all its machines, but it is well known that the Sandia Labs and Lawrence Livermore National Laboratory have a number on hand.

By time-sharing—having the computers process their work when not otherwise busy—researchers in several such establishments have done important work programming computers to "understand" and draw transparent objects, lenses, and realistic landscapes.

Two of the most prolific of these researchers are James F. Blinn at the Jet Propulsion Laboratory in Pasadena, and Nelson Max at Lawrence Livermore National Laboratories. Blinn's group at JPL animated the striking computer simulations of the Voyager probes' journeys to the outer planets, widely shown

on network and public television in 1980-81. Nelson Max has worked largely on graphic representation of biological processes. Using his graphics programs, he has been able to predict how molecules will interact before lab tests have been made. Max has also investigated the effects of mutagens on DNA, and modeled the structure of very tiny viruses.

After months or years of painstaking labor, computer artists display their wares at annual SIGGRAPH conventions. (SIGGRAPH stands for Special Interest Group, Graphics, a division of the Association of Computing Machinery, or ACM.) Private individuals, employees of giant research establishments, and commercial film studios gather to compare notes and keep up on the latest developments.

C.P. Snow's "Two Cultures" are inevitably wedded in computer graphics.

Not since Leonardo da Vinci have so many technical disciplines been required of working artists. Not only must they have basic drawing and drafting skills, but they must know at least the rudiments of programming. They must understand how light reflects, refracts, and diffuses—and be able to translate their knowledge into terms the computer can digest. The artist can no longer stand aloof from science and math. New techniques can take him to the frontiers of theory.

Recent work in the texturing of surfaces has used fractals, mathematical entities capable of generating very complex patterns. Perhaps the most familiar example of computer animation with fractal-generated landscapes is the "Genesis"

sequence from *Star Trek II: The Wrath of Khan*, made for Paramount Pictures by Sprockets, the computer division of Lucasfilm's Industrial Light and Magic.

One of the focal points for computer animators was the Walt Disney production of *Tron*. Information International, Inc. (known as triple-I), Mathematical Applications Group, Inc. (MAGI), Robert Abel and Associates, and Digital Effects all contributed their expertise; yet *Tron* contained only ten to fifteen minutes of full computer animation. The rest was accomplished with conventional special effects and animation techniques.

A great many of the people who worked on *Tron* have now moved on to positions in companies around the country. A few, such as Richard Taylor, are still involved with feature-length motion pictures. Taylor is reportedly hard at work on a film called *Dreamer* for Paramount.

In advertising, two of the biggest film companies have made a major commitment to computer graphics. Robert Abel in Hollywood—long renowned for the beautiful combinations of live action and back-lit animation in his Levi's and Seven-Up commercials—assembled a computer graphics division while assigned to do special effects for *Star Trek: The Motion Picture*. Unlike Digital Productions, however, Abel kept all his other special effects techniques, considering computer graphics as another tool, not an end in itself. "A lot of the stuff we do is combination," Abel explains, "where we combine miniatures and live action with computer images." Pure computer animation, at present, is

more expensive than many other techniques, and in Abel's view, flexibility and variety are necessary to the production of commercial advertising films.

Bo Gehring, in charge of Bo Gehring Associates in Venice, California, originally came to the west coast to do computer animation tests for Steven Spielberg's *Close Encounters of the Third Kind.* The tests proved unsatisfactory but Gehring stayed on to found his own company—again, with a complete spectrum of techniques at his disposal. Unlike Abel, who began as a documentary film maker, Gehring's roots are in computer graphics, but he agrees with Abel that commitment to one technique is risky. As for getting involved in feature films: "Ninety million dollars is spent *each day* on advertising in the United States," Gehring says. "Feature films can't begin to match that level of financing. I'm secure where I am."

Both Gehring and Abel believe that computer graphics is still in its infancy, and will probably have a major effect on all forms of visual communication. For the moment, however, neither is willing to make the leap of faith required for an operation such as that being conducted at Digital Productions. And truthfully, Gehring admits that his financial backing is not equal to Digital Productions', which is supported by Ramtek, a major computer company. "I am a bit envious of what John Whitney Jr. and Gary Demos have come into at Digital—all that [computing] power. But I'm happy with my situation, and just can't see taking that kind of risk right now."

Gehring also expresses an interest in digital *sound*

synthesis. "I'm one of those people who has to pull off the road when something really intriguing comes on the car radio. I firmly believe that sound is at least the equal of sight in bandwidth—complexity of information—and synthetic sound is a fascinating area that's barely been explored."

Another of the Big Three companies, R. Greenberg in New York, is rapidly building its computer graphics division.

Computers have revolutionized the film industry in many more ways than computer graphics. Virtually all commercial studios, whether producing advertising or feature films, use computers to control complex camera movements or integrate different elements of photography.

At Robert Abel, slit-scan photography is a staple item. The process was originally developed by Con Pedersen and Douglas Trumbull while working for Stanley Kubrick on *2001: A Space Odyssey*. Pedersen now works at Abel, where he supervises other aspects of special effects production, including computer graphics. (Trumbull, interestingly, seems to eschew full computer animation. In his recent film *Brainstorm*, even sequences which appeared to be computer-generated were done using other techniques.)

In slit-scan, a camera is mounted at the end of a long track, at the opposite end of which a piece of flat artwork is masked to reveal only a narrow horizontal slit. As the camera moves forward very slowly, a computer coordinates the motion of the slit up or down on the artwork. The result is a drawn-out image of the artwork,

stretched in perspective by the camera's approach.

Computers are also responsible for the many forms of motion-control used to photograph space battles at Lucasfilm and elsewhere. Signals from a camera mount are fed into a computer, which memorizes the camera positions and can then control the camera for repeated passes. Different models, mattes, and other special effects elements can be added with great precision.

Computers are even involved in stop-motion puppet animation at Industrial Light and Magic. The "Go-Motion" computerized system was used in *Dragonslayer* to memorize the motions of an armatured miniature dragon as it was manually "walked through" its sequences.

All these elaborations—from slit-scan to Go-Motion puppet animation—are likely to become passe before the end of the century. Whatever the risks, Digital Productions is obviously where the field is moving.

But computers have one major hurdle to leap before they dominate. Character animation—whether it be the fluid motions of a Disney cel-animated deer, or a human being—is still very difficult for computers.

Computers are happiest when dealing with shapes defined by simple mathematics—planes in perspective, spheres, cones, polygons, and polyhedrons. Humans (not to mention Bambi or dragons) are not composed of these objects, at least not at first glance. Living characters are lumpy, bumpy, and in constant motion—all parts of them. Muscles shift beneath skin and skeletal angles change. Facial expression is

a nightmare of complexity with hundreds of muscles providing a bewildering variety of shapes—all of them familiar to the viewer, and therefore difficult to fake convincingly.

For the artist, years of study are required to convincingly replicate human and animal shapes. The human mind is enormously more complicated than any modern computer, with millions of "algorithms" all smoothly blending in unconscious processes. How can a computer hope to match the work of a skilled cartoon animator, much less the reality of a human being?

Tim Heidmann, at R&B EFX in Glendale, believes character animation is the stumbling block of computer graphics. "When you think of all the expertise required to get a Disney-type character on film—including the distortion of reality, stretching characters to add life, exaggerating expressions—the problem seems insurmountable." Heidmann does computer graphics for R&B EFX using a much smaller Hewlett-Packard business computer. The HP manipulates wireframe images which are then photographed and enhanced by hand in R&B's own small animation studio. The entire system cost under $25,000. "What computers do best," he explains, "is what human animators do with the most difficulty—changing perspective, drawing geometric shapes. And what humans do best is most difficult for computers—especially a small system like ours: coloring, shading, characters." R&B combines the two with ingenuity instead of massive number-crunching.

Digital Productions is hard at work using both

ingenuity and brute computing power to overcome the difficulties of animating characters in a computer. Most of this work is under tight wraps of security, but it appears they are building up human and human-like figures by creating "intelligent shapes" which will mimic muscles on fixed skeletal frames. These "intelligent shapes" will be programmed to interact with other shapes—other muscles—around a skeleton, within the constraints of skin.

Motion studies of animals and humans are programmed into their machines to give them parameters within which to work. Ron Cobb explains: "A computer doesn't know where to stop. If you have a character's arm swinging, the arm in the machine isn't *real*. It doesn't have an elbow or a shoulder to stop it. It just keeps swinging in a circle until you tell it what the limits are. Then it has the limits in memory, but you have to be very specific, very careful."

The computer cannot intuit anything. It is literal. Everything must be described in detail. Consequently, the computing capacity and time required to control these figures will be enormous—at first. But the cost of the early stages in labor and money can be compared to research and development costs in any industry. The initial outlay is always greater than the cost of later work.

One small hint of the coming revolution is provided by the locations of two major companies relying on computer graphics. Cranston-Csuri, founded by pioneer computer artist Charles A. Csuri, is located in Columbus, Ohio. Computer Creations takes pride in being based in South Bend, Indiana—far from

the advertising capitals of New York and Los Angeles. Electronics can deliver messages and products around the world; in the future, location will be less and less important.

Size will also become less important. With computers, a commercial studio can begin operations with only a handful of creative people. Pacific Data Images, in Sunnyvale, California, has only four employees, yet has already landed major advertising and promotional contracts. With initial costs of less than a million dollars, entrepreneurs like PDI's Carl Rosendahl are already taking advantage of the built-in flexibility of the computer. Costs are dropping, and software is improving, albeit more slowly than hardware. Within ten years, the big advertising companies will be surrounded by smaller, tougher firms with equal capabilities. The bottom line will then be not money, but creativity.

There is no lack of creativity. The computer images and motion pictures produced by artists around the world are dizzying in variety and quantity. California's David Em is well known for his architectural fantasies and abstractions. Paul Allen Newell has animated M. C. Escher-inspired tesselated designs that transform with enchanting smoothness and precision.

Nancy Burson of New York (profiled in *Omni*, "The Arts," June 1983) uses computers to digitally combine photographic images of people and animals. She was responsible for the portrait of Big Brother commissioned for CBS's tribute to Orwell's *1984*. By digitizing and melding the portraits of the twentieth century's worst tyrants, she came up with a haunt-

ingly familiar, somehow benevolent, and yet very unsettling hybrid. Much more charming is her mix of woman and cat.

Em, Burson, and Newell highlight the successes and problems of presenting computer graphics on the printed page. Em's and Burson's images are static, suitable for magazine reproduction, but the charm of Newell's work lies in motion.

Even more difficult to convey is the wonder of a live computer art performance, where performer and audience are one. Ed Tannenbaum of Raster Master in San Francisco has installed a performance art center in his city's public-access science center, Exploratorium. A video camera photographs people in a room as they move about and then feeds their images to a computer. The result is projected in real-time (that is, live) on a large screen, allowing infinite varieties of human-machine artwork. Children can dance and paint with their bodies, becoming their own kaleidoscopes.

Educators inevitably become more involved with computer graphics as classroom computers proliferate. Simple graphics programs can teach even very young children how to work (and play) with computers. Today's youngsters will find computers and computer art a part of their lives.

This is where the revolution truly becomes powerful.

In one or two decades, at the present rate of progress, computers cheap enough for home use will be capable of graphics even more sophisticated than those being produced by today's major studios. Graphics buffs will be creating,

trading, and selling programs to generate different kinds of images—including images of realistic characters.

Eventually, perhaps by the end of this century, a kind of visual typewriter will be possible. Any scene the programmer/artist/writer can imagine will be brought to life using computer animation. As software and hardware advance and become cheaper, and as information and image networks expand, virtually anybody can become a Cecil B. De Mille. The major requirements will be time and talent—*not* money.

The greatest handicap to cinema at the moment is the dominance of accounting over creativity. Faced with budgets of tens of millions of dollars, studio executives are justifiably concerned that their products should appeal to large numbers of people. The result is often pablum. Primary creativity is endlessly ignored or second-guessed.

Commercial television networks are even more handicapped; to satisfy advertisers, incredible numbers of people must tune in to their programs. Few artists or writers have ever made anything worthwhile by pandering to the lowest common denominator, yet this is the current state of most of network television.

The printed word allows more freedom. A pencil and a piece of paper are all that is required for expression in print. The production of a book is measured in tens of thousands of dollars for an average press run, not millions. Publishing—for the moment—still allows a great many writers to create personal works. A writer can establish a reputation

with only a few hundred or a few thousand steady readers.

Yet only ten to twenty percent of Americans regularly read books. Newspapers and magazines fare better—but less than half of all Americans receive any of their information from the printed word. What we have is a colossal failure of a communications medium—print—to reach the masses.

For many people, print is difficult to assimilate. It has many uses and advantages, but often it cannot convey information as quickly and efficiently as other media.

The dilemma is clear. Print offers diversity and individual expression—as well as the active participation of the reader, in imagining and fleshing out what the words convey—but cannot reach as many people as television or motion pictures.

Television and motion pictures appeal to the masses, but more often than not spoon-feed pablum to a barely conscious viewer.

By combining both print and vision, computers will break the money monopoly and allow many more people to work with "pictorial narratives," a catch-all phrase for the multitude of art forms which will inevitably develop.

Robert Abel sees a future society with individuals becoming more and more isolated, physically, as the electronics revolution allows them to work at home. With increasingly sophisticated entertainment forms, there will be less need to leave home for recreation. With more leisure time, the public will demand more entertainment. And with more artists able to produce

complicated pictorial narratives, the demand could well be met with an explosion of creativity—if the audience isn't already conditioned to textureless drivel. If it isn't too late even now . . .

Take a deep breath.

We're going to enter a possible future, and it will take some effort to get used to it.

You're on a street. A woman approaches you. She appears to be wearing a jungle. You stare in amazement as she passes; to a distance of about six inches, all around her, you can see gnarled trees, vines and creepers, exotic birds, even a leopard lying in wait.

She walks along a wall and the building suddenly smiles at her—the entire wall one massive pair of lips in three dimensions. "Good morning, Miss Andrews," it says. "How may we serve you today? Shopping for apparel, or just out for a stroll?" AdWalls are formal and slightly stodgy by design. Virtually everyone is known, on sight, by ad companies who use computers to target not just groups of consumers but individuals.

The woman pays no attention and continues on. The smile disintegrates into a flight of wildly colored butterflies as you approach.

"Distinguished sir," the AdWall says. Butterflies flitter around you. "I don't have your name in memory at this moment. How may Freepic serve you today?"

You mumble something about wanting to find a computer store.

"Chips'n'discs, the city's oldest computer store, lies but two blocks away." A map appears in front of your

face, then transforms into a speeded-up visual tour. You see yourself walking two blocks south, turning left, and entering the store. The image ends with a large-scale projection of the storefront. Symbols conveying hours of business, product lines available, and even clerk's faces are overlaid on each side of the map.

You make your way through parti-robed citizens and find the store. Inside, you marvel at the systems available. There are computers for computing, and for just about anything else imaginable. You can rent information networks, even gain access to a world-wide library system for a low monthly fee. ("Less than one percent of the average household income!" a display enthuses. There are two billion subscribers.)

Your domicile can be turned into any environment you wish, complete with sounds and smells. You can even create your own environment, using the Apple 89 Worldmaker.

"Occupation?" the clerk asks. The clerk grins and fades to transparency, then opacifies again, as required by law in the first few minutes of service. You realize you are being served by a very realistic hologram.

"Writer," you say.

"Oh, then you need a minezeye." It takes you a few minutes to realize the clerk means "Mind's Eye." The unit is quite small, the size of a cigarette case, and comes complete with plugs to hook directly into the cerebral cortex.

"The Mind's Eye is a Hair Trigger unit, taking instruction in basic Brainwave, spoken language, or

even Touchcode, rather like typing. If you wish, it has a translator which can turn a videotext into a visual experience. Plug the Mind's Eye into a Page Turner and you can interactively turn your favorite classic into a motion picture, just as *you* visualize it; you coordinate the action through the cerebral cortex plugs. Some training required," the clerk informs you cheerfully.

Videotext combines visual and aural information with high-density symbols—symbols which both inform and trigger intellectual and emotional cues in the adept viewer. Some videotexts compress a hundred flashing signals within a few seconds' time. The symbols are distant relatives of Egyptian hieroglyphs—and modern road signs. Some are based on the logos of famous businesses. Some are as stylish as Japanese calligraphy.

Realtime units will soon be available. If you think it takes too long to imagine a scene, Realtime can supplement your brainwaves. If a jungle is required, Realtime has seventy different jungles in memory, and soon will have cable connections with real jungles, which can be digitized and reshaped at will.

All computers in Chips'n'discs are, of course, Child Easy. In fact, the 1-Thru-5 unit is designed to be used by an infant. It comes complete with Sensual Crib and access to the Sesame Net.

If you're a fiction writer, you can peddle your creation on the Lie Wire (stet!). If you're a philosopher, your works can find their audience (for a fee, of course) on the Mindbender cable. Historians frequently sell to the Pasttime Cable.

On any of these networks, you can start out on the

Low Rung and gradually, through jury selection or User Acceptance (the ratings, that is), move up step by step to the very height of success. A single work might reach as many people as, say, the Britannica Visual.

Peripherals include MovieLife, a chip which can be dropped into your home computer to turn any 20th century film into a living experience for you and your family. If you'd prefer to see Humphrey Bogart star in *The Man Who Would Be King*, instead of Michael Caine, that can be arranged. If you'd like to see an enhanced color version of the original *King Kong*, with synthesized stereo sound, MovieLife will oblige.

Live actors are still in great demand. They frequently license their images for computer generation, making a substantial second income—but virtually everyone acknowledges that a real actor is better than a simulation. Some actors have ruined promising careers by sellings rights to less reputable retailers, who place their personas in all sorts of compromising products.

But be warned—if you get *too* involved in all this, and happen to Drop Out—leave the real world and zip along the underground nets, where all sorts of unsavory stimulations are available—the Bug Police are tapping the wires every day. There are many legitimate adult services, such as FantaFem and Woman of Your Dreams, but many more balance precariously on the borders of the law, or fall completely offsides.

"Bookstores?" The clerk responds to your question with some surprise. "We've heard of a few shops

catering to the collector's market—and of course, there's always the Winston Smith Society. It meets once a month to trade crumbling paperbacks."

You look around the shop, at the profusion of systems that serve more to supplement or replace creativity than enhance it. "Don't you have anything for someone who just wants to tell his own story, with his own images?" you ask, frowning.

"Sir," the clerk says indignantly, "that's where this all *begins*. Not everyone is as privileged as you must be, however."

You are reminded of electronic music instruments, decades in the past. Some became so elaborate that you barely had to touch a key to produce a tune. Distasteful to the concert pianist, perhaps, but a great deal of fun for the dabbler.

"Come with me," the clerk says, taking you in his ghostly hand. "Let me show you some basic models. For the person who wants to create, rather than simply consume."

You are led into a simply and tastefully furnished room. A boy and girl, no older than ten, are sitting before an extensive keyboard. Colors and vague shapes flicker in a cleared area beyond the machine. "Did we get all the numbers right this time?" the girl asks. "We want it to be as accurate as possible."

"They're right," the boy assures her.

"Let's see it, then."

The boy pushes a display key.

In the cleared area, a tyrannosaurus rex appears in horrible, fascinating detail, tail swishing back and forth, walking on its six clawed toes. It opens its mouth and emits a curious, bird-like squawk.

"Oh, they didn't sound like *that*," the girl says, shaking her head vigorously.

"How do you know?" the boy asks.

"Let's make it roar."

With a few nimble keyboard touches, they make the beast change its tune and roar.

"Don't you just *love* dinosaurs?" the girl asks, clapping her hands.

Your fingers twitch. Where was this kind of machine when you were a child? You step forward and politely ask, "Here. May I play with that?"

"I've always fancied sea monsters, myself..."

(The author, by the way, is highly enamored of books and other print media. All letters of protest should be addressed to people not yet born.)

This article was completed in early 1984. And no, Max Headroom is not computer-generated, although the television series used a great many computer graphics; Max is an actor in make-up subjected to video effects.

MEMORIAL SERVICE FOR TED STURGEON

This was published in Locus *shortly after Sturgeon's death. There have been a number of deaths recently of people important in my life: Terry Carr, who bought two of my stories early on—"Scattershot" and "The White Horse Child"—and whose anthologies have been with me since I was a teenager; Alice Sheldon, aka James Tiptree, whose excellent fiction influenced my writing, particularly in "Scattershot" and "Hardfought." The science fiction field is so close, so much like family at times, that I feel these deaths in a peculiar way. I did not know these people very well personally—not even Sturgeon—but they feel like a part of me. When they go, I am less; but because of what they have done, they have given me more than they take away by dying.*

Theodore Sturgeon never met a book—or a human being—he didn't like. Or if he did, he never let on.

A memorial service was held in San Diego for

Theodore Sturgeon at 10:30 a.m., May 12 at the American Holistic Church on Morena Boulevard. Sturgeon had supported the church's activities, and his wife was a minister there.

After a welcome and invocation, where everyone held hands and formed a circle, and after a "Sharing" by the Rev. Janet Little, four friends presented personal eulogies for Sturgeon. Behind the podium, more than twenty of Sturgeon's books were lined up to represent his life's work. In order of appearance, the friends were the Rev. Amy Silverberg, Barbara Odell, guitarist Brad Kilmer—who played during the service—and Richard Englehart.

The friends were effective in presenting at least a partial portrait of Sturgeon. Calling him "Ted," and then smilingly adding "Theodore Sturgeon" as if indulging in some private joke, they recounted tales of Sturgeon's advice to young writers, and of his persistent unwillingness to settle for pat answers. Each pointed up Sturgeon's personal symbol, a Q with an outward-pointing arrow, signifying: "Ask the next question."

The friends and congregation then delivered up Sturgeon to his next adventure, his next quest(ion), and said their public goodbyes. A "Healing Meditation" followed, in which visitors and members again formed a circle to meditate and pray together.

During this meditation, we were asked to draw down a figurative sun and open our heads to its rays. Other group imagery followed, but I'm afraid I was lost in my own personal tribute to Theodore Sturgeon. With eyes closed, I drew down the sun and placed it in the middle of the circle. Around the sun

I set us all whirling, and orbiting within us, Sturgeon on a carousel unicorn laughing and waving good-bye. He had to grip the unicorn's pole tightly as it accelerated up and out of sight.

The last I saw of him was wildly streaming gray hair.

He leaves behind many offspring, and a horde of quasi-legitimate literary children. In that sense, I am one of his sons.

This book was designed by Jim Mann and Andy Cowan; set in Camelot by Aron Insinga and Andy Cowan at Typo-Tech Reproduction Center, Inc., with assistance from Mark Trumpler, George Flynn, and a gaggle of others; and printed on Neutral pH 60# paper by BookCrafters, Inc. of Chelsea, Michigan.

Greg Bear is a versatile writer of speculative fiction. He has a firm grounding in science with degrees in both physics and mathematics. He has written exciting hard science books like *Eon* and *Blood Music,* engrossing fantasies like *The Serpent Mage,* and a surprising number of articles and short stories. His latest novel is *Forge of God.* Greg first became prominent in SF as an illustrator in the 1970s, then turned to fiction, and is now one of the leading younger SF writers. He's won both the Nebula and the Hugo award several times over. In fact, he was the first author to win two Nebulas in one year. Greg is quickly being accepted as one of the finest authors of the hard science fiction field. He shares his lakeside Washington state home with his wife Astrid Anderson, his son Erik, and a very interesting collection of boolks.

Dust jacket painting © 1988 by David Mattingly.

THE NESFA PRESS
BOX G, MIT BRANCH P.O.
CAMBRIDGE, MA 02139-0910
1988